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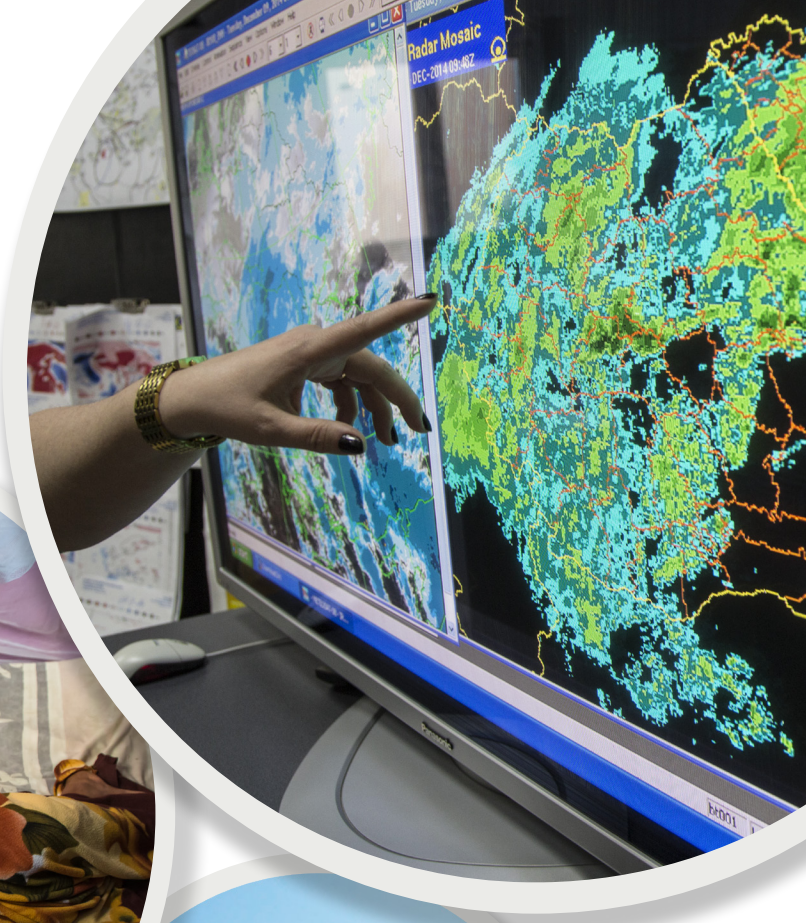

Financing the Climate-Health Nexus

A Guide for Developing Countries to Access Funds

APRIL 2019

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ACRONYMS

AF	Adaptation Fund
AfDB	African Development Bank
AE	Accredited Entity
ACCF	Africa Climate Change Fund
CCA	Climate change adaptation
CCM	Country Coordinating Mechanism
CIFF	Children's Investment Fund Foundation
COP	Conference of Parties
CTCN	Climate Technology Centre and Network
EDCTP	European & Developing Countries Clinical Trials Partnership
GCCA+	Global Climate Change Alliance
GCF	Green Climate Fund
GEF	Global Environment Facility
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HNAP	Health National Adaptation Plans
IKI	International Climate Initiative
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
LDCs	Least Developed Countries
LDCF	Least Developed Countries Fund
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NCF	Nordic Climate Facility
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NDE	National Designated Entity
NDF	Nordic Development Fund
NGO	Nongovernmental organization
OFID	OPEC Fund for International Development
PPP	Public–private partnership
REDD	Reducing Emissions from Deforestation and Forest Degradation
SID	Small Island Developing State
TB	Tuberculosis
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization

OVERVIEW

Climate variability and change are expected to increase health risks for a range of diseases and illnesses, particularly in developing countries where health care systems are already challenged by lack of resources and capacity. Climate change and variability increases both *direct health risks*, for example, by increasing the risk of respiratory diseases and dehydration due to more intense heatwaves; and *indirect risks*, such as changing the occurrence of infectious diseases, potential decrease in food production and security, reducing overall health through exposure to pollutants, and straining health services (Llorca, 2016).

Greater investments to address current and future climate-sensitive health challenges are critical to limit the impact of climate change and variability on health sector service delivery. According to the Intergovernmental Panel on Climate Change (IPCC), the single most important step to reduce the impact of climate change on health is to accelerate public health interventions to reduce the present burden of disease, particularly diseases related to climatic conditions in poor countries. Modelling conducted by the International Food Policy Research Institute also concludes that aggressive agricultural productivity investments are needed to increase per capita calorie consumption and reduce child malnourishment enough to offset the negative impacts of climate change on the health and well-being of children (Batka et al. 2009). Priority interventions include improving the management of the environmental determinants of health (such as provision of water and sanitation), increasing infectious disease surveillance, disseminating local cultivars of drought-resistant crop varieties, and strengthening the resilience of health systems to extreme weather events. Although early investment in climate-smart health systems will reduce the burden of disease both today and in the future, few investments have come from funding that specifically addresses climate-sensitive health outcomes.

The purpose of this guide is to provide information on how to 1) access funds to explore the relationship between climate stressors and human health, and 2) address the challenges and opportunities of funding health initiatives that respond to risks posed by climate change. Streamlining access to funding for these purposes will better equip countries to address and limit these risks.

AUDIENCE

The primary audience for this document is national governments in developing countries, principally national health ministries in sub-Saharan Africa. The secondary audience is public health care professionals, health sector development practitioners, and other stakeholders supporting health and climate change initiatives and priorities in developing countries.

ORGANIZATION OF GUIDE

The Link between Climate and Health: offers an overview of the climate–health nexus, describing opportunities for responding to the challenges of climate change (what actions can be taken and what resources are available). This section also provides information about how health and climate change have been prioritized to date in national strategies and plans.

The Finance Landscape: covers the landscape of financing, from global health and climate change funds, to the opportunities and barriers to accessing private sector financing.

Accessing Funding: Resources and Experiences: provides resources for proposal and project preparation, and highlights several case studies where climate change has been integrated into health initiatives.

Guide to Available Funds: has information on available funding sources, with information on each source's purpose, eligibility criteria, focus areas, type of funding, and how to access them.

Use the red tab for easy access to the Guide throughout the document

QUICK GUIDE TO AVAILABLE FUNDS

Section 1: The Link Between Climate and Health

IN THIS SECTION

1.1 WHAT IS THE CLIMATE–HEALTH NEXUS?

Climate change is projected to be one of the greatest threats to global health in the 21st century. Climate change and variability impact social and environmental determinants of health – clean air, safe drinking water, sufficient food, spread of infectious diseases, and secure shelter – and thus present new and additional challenges to public health systems. As seen in Figure 1, some of these challenges include increased death and illness due to rising temperatures and extreme events, exacerbation of respiratory diseases due to reduced air quality, changing dynamics of vector-borne diseases, increased incidence of water-related illness, and increased threats to food security, nutrition, and mental health.

FIGURE 1. CLIMATE PROJECTIONS AND KEY IMPACTS ON GLOBAL HEALTH

SOURCE: CDC 2016. Climate Effects on Health

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MEASURING HEALTH IMPACTS

The nexus of health and climate change is complex. However, the overall health impacts of a changing climate are expected to be overwhelmingly negative and threaten to reverse progress made in health and development. Determining the exact impact of climate change on health is difficult due to considerable uncertainty about the future, including future greenhouse gas (GHG) emissions and the degree to which health systems implement adaptive strategies. However, even under an optimistic scenario, where future socioeconomic development is strong and health systems have actively implemented adaptation initiatives, the World Health Organization (WHO) estimates that climate change could cause an additional 250,000 deaths per year between 2030–2050 from malnutrition, malaria, diarrhea, and heat stress (WHO 2014a). By 2030, the direct cost to the health sector is estimated to be $2–4 billion per year (WHO 2017). By 2050, the World Bank estimates that more than 80 percent of health sector adaptation costs will be shouldered by Sub-Saharan Africa (World Bank, 2010).

WHO IS AT RISK?

While all populations will be affected by climate change, underlying health, demographic, and socioeconomic factors make some populations in Sub-Saharan Africa more vulnerable than others. The effects of climate change fall disproportionately on the populations of developing countries, owing to weak health systems, the economic importance of climate-sensitive sectors, such as agriculture, and limited financial and human capacity to respond to rapidly accelerating climate-related health threats. Those most vulnerable include communities that rely on rainfed agriculture, children, pregnant and nursing women, older adults, vulnerable occupational groups, persons with disabilities or preexisting medical conditions, and those who live in areas with weak health infrastructure.

Climate variability and change are also expected to affect men and women differently. In some cases, women face higher vulnerability due to unequal participation in decision-making processes, weaker control over economic assets, and differences in social roles and responsibilities. For example, women may not receive needed health care because community norms prevent them from traveling alone to a clinic. In contrast, there is evidence that crop losses from drought can disproportionately increase suicide rates among male farmers (WHO 2010). It has also been recognized that men and boys are less likely to seek help for stress and mental health issues than women and girls, meaning that preparation for, and responses to, climate change need to be sensitive to gender differentials in health care (Brody, Demetriades, and Esplen 2008).

PROJECTING HEALTH CONSEQUENCES FOR SUB-SAHARAN AFRICA

According to the WHO, sub-Saharan Africa is expected to have the greatest climate-induced health burden, followed by Asia Pacific and Oceania (Lechthaler and Wyss 2017). Health risks from climate change specific to sub-Saharan Africa include (USAID 2017):

- **Shifts in malarial burden from West to East Africa**, with disease risk becoming seasonal in some areas and rising in others. By 2050, 45–65 million more people are expected to be at risk in East Africa alone.
- Ten million more **children under age five at risk of stunting** by 2050 due to temperature-related reduced yields and lower micronutrient content of staple grains.
- **A rise in diarrheal disease risk** (already a top killer of children under five) of 22 percent by 2100 due to increased temperatures and decreased rainfall. Dry conditions are hypothesized to increase the activity and density of flies that transmit diarrhea-causing microorganisms.
- **Increase in Rift Valley Fever** linked to heavy rainfall and flooding, devastating livestock and increasing food insecurity.
- **An increase in the bacterium that causes meningococcal meningitis** – associated with dry, dusty winds – with 10 percent more of the continent likely to become arid by 2080.
- Predominantly an urban disease, increased **dengue fever incidence** due to warming and humidity, with up to 56 percent of the world's population at risk by 2050. Africa, the world's most rapidly urbanizing continent, is likely to see sharp increases in disease incidence.
- An estimated **20 percent rise in cases of schistosomiasis** by 2050 as higher temperatures create new habitats for the snails that carry the disease.

1.2 WHAT OPPORTUNITIES EXIST FOR THE HEALTH SECTOR TO RESPOND TO CLIMATE CHANGE?

All climate-sensitive economic sectors (e.g. agriculture, transportation, energy) are likely to be affected by climate change, and linkages between health and other sectors are essential in achieving policies that promote health while responding to climate change. Two categories of responses to climate change and variability are adaptation and mitigation:

- **Adaptation** actions are taken to manage unavoidable climate change-related impacts and to take advantage of opportunities. Adaptation includes actions taken in advance of climate change impacts or reactions in response to perceived or real risks. In public health, the analogous term is prevention (Ebi and Semenza 2008).
- **Mitigation** efforts aim to cut or prevent the emission of GHGs, limiting the magnitude of future climate change (Castello et al. 2009).

Mitigation and adaptation activities often occur simultaneously. For example, introducing clean-burning biomass cookstoves to replace traditional cookstoves fueled by coal or solid biomass (e.g., wood) not only reduces GHG emissions and improves air quality and health outcomes, but also increases the adaptive capacity of communities vulnerable to the deterioration of natural resources. Similarly, a hospital that installs solar panels reduces GHG emissions by moving away from fossil-fuel based energy is also better able to adapt to the climate extremes (floods, storms, etc.) that often compromise stable access to energy.

INTEGRATED RESPONSE

The severity of these health risks will depend on the ability of public health and safety systems to address and prepare for future health impacts of climate change. Responding to climate-related shocks and stress will demand a cumulative effort within the system itself as well as its sphere of influence. Within each building block of the health system (e.g. governance, workforce, information systems, financing) stakeholders will need to take steps towards adaptation and mitigation, as outlined in the WHO operational framework for building climate resilient health systems (WHO 2015d). Since health impacts (co-benefits and risks) from climate variability and change are strongly interlinked with environmental and social systems, an effective response to these new challenges will require engagement and coordination across many sectors, such as water, sanitation, housing, and nutrition. Doing so will help safeguard current development gains and will support achievement of the Sustainable Development Goals (Lechthaler and Wyss 2017). The Sustainable Development Goals are a set of 17 interconnected social and economic goals set by the United Nations Development Programme (UNDP), which aim to address challenges including poverty, hunger, health, and adverse climate impacts, thus paving the way towards a better and sustainable future (UNDP 2018).

Governments, donors, and the private sector have a distinct, yet largely unrecognized, opportunity to make significant health gains by taking early action to anticipate and respond to climate change. The health sector is uniquely positioned to receive co-benefits from mitigation measures that reduce GHG emissions. Lower emissions not only improve air quality in the short term (air pollution is estimated to cause 1 in 8 premature deaths worldwide), but also reduce the magnitude of climate change to which health systems will need to adapt in the long term (WHO 2015c). Accounting for such co-benefits (for example, improved air quality, energy access, and water quality) creates a wider space for cross-sector collaboration, facilitates raising finance, and can offset a significant part of the cost of adaptation and mitigation. A comprehensive response to climate change that unlocks health co-benefits could be the greatest global health opportunity in the coming decades.

OPPORTUNITIES THROUGH ADAPTATION ACTIONS

There are limits to the extent to which health systems can adapt to a changing climate. Nonetheless, adaptation efforts can help to 1) minimize some of the negative health impacts of climate change that have already occurred, and 2) anticipate and prevent future consequences. Examples of adaptation actions at the national level fall under

TABLE 1. ILLUSTRATIVE ADAPTATION ACTIONS

1. Information Systems	2. Leadership and Governance	3. Risk Management
» Enhance climate–health research and establish baseline relationships between weather and health » Downscale climate model projections to better predict the possible geographical spread of diseases » Use data collection technologies such as SMS to improve epidemic detection and response » Strengthen early warning and surveillance tools (e.g., seasonal forecasts, early warnings of extreme weather, disease surveillance and outbreak alert systems) that combine epidemiological and climate data to inform response (e.g., use of satellite weather data for predictive models on vector activity and disease outbreaks) (Lechthaler and Wyss 2017) » Establish community engagement and feedback mechanisms to better allow at-risk populations to respond to early warning systems (WHO 2015d)	» Support intersectoral cooperation between ministries of health and ministries of the environment, water, and weather and climate (as well as ministries that engage in related work, such as ministries of planning and infrastructure development) (WHO 2015d) » Support climate-sensitive health programs to integrate health into adaptation plans, development strategies, and other sector plans and policies (WHO 2015d) » Enhance cross-sectoral collaboration on epidemic detection and early warning systems and responses » Expand health system capacity by reducing doctor and staff shortages, improving productivity, and increasing awareness and understanding of the impacts of weather and climate on health among health care professionals and the general public » Strengthen strategic planning and decision making through accessible, actionable information on climate and health	» Develop contingency plans for disaster risk preparedness including managing staff and supplies during disasters including disease outbreaks and/or extreme weather events » Include climate impacts in health surveillance systems and speed up reporting » Identify and map areas at highest risk of negative outcomes to target investments in health infrastructure, medical supplies, and drugs » Upgrade health system infrastructure, technologies, and processes in response to increased extreme weather events (e.g. strengthening buildings, hospitals, storage facilities, etc.). Implement telehealth schemes to reduce the travel-related costs and carbon footprint of health care facilities and improve access and outcomes for vulnerable groups

three main categories (Table 1).
However, even with optimal resources and engagement, public interventions will not be sufficient. Governments need to engage with the private sector and local communities to identify risks, response measures, and adaptation needs to catalyze adaptation investments.

OPPORTUNITIES THROUGH MITIGATION ACTIONS

The provision of health care services is an energy-intensive activity. In many parts of the world an increase in energy consumption is necessary to improve the delivery of health care. For example, in the United States, health care buildings are the second most energy-intensive commercial sector buildings; in Brazil, hospitals account for 10.6 percent of the country's total commercial energy consumption (WHO 2009). This presents both a responsibility and an opportunity for the health sector to transition away from highly polluting fossil fuel energy, and to demonstrate how clean energy technologies can provide co-benefits in terms of public health and cost savings. For example, implementing targeted measures to reduce short-lived climate pollutants, such as hydrofluorocarbons (HFCs) used for refrigeration in the health sector, could save approximately 2.3 million lives per year by 2050, and reduce global warming by about 0.5°C (WHO 2015a). Some of the largest gains would come from promoting cleaner household energy for cooking, heating, and lighting in the poorest communities, which carry the greatest burden of indoor air pollution.

Incorporating green building principles in design, construction, and retrofits of health care facilities is another key way the health sector can reduce GHG emissions and support low-carbon development. From generating renewable energy on-site, locating hospitals near public transportation routes, using local and regional building materials, and planting trees on the site, to incorporating design components like daylighting, rainwater harvesting systems, natural ventilation, and green roofs, health care facilities can reduce their climate footprint.

Key strategies health care facilities can take to reduce GHG emissions, while saving money and generating health co-benefits, include:

- **Transition to 100 percent renewable energy** – Produce and/or consume clean, renewable energy to ensure reliable and resilient operation (e.g., solar, wind, geothermal, tidal energy); reduce emissions of pollutants associated with health risks.
- **Increase energy efficiency** – Reduce health care facilities' energy consumption and costs through efficiency and conservation measures (e.g., Energy Star appliances, LED lights, lighting controls, daylighting, no-energy medical devices).
- **Invest in green building design** – Build health care facilities that are responsive to local climate conditions and optimized for reduced energy and resource demands (e.g., LEED- (Leadership in Energy and Environmental Design) or Green Globes-certified); at the policy level, revise building codes to incorporate energy reduction at the design and construction stage.
- **Improve sustainability of transportation** – Use alternative fuels for health care vehicle fleets; promote staff, patient, and community use of public transport; site health care buildings to minimize transit needs.
- **Increase sustainability of food system** – Provide sustainably grown, local food for staff and patients; for waste systems, reduce, reuse, recycle, compost, and employ alternatives to waste incineration; and for water resources, conserve water and reduce bottled water consumption when safe alternatives exist.

Many of these strategies can be implemented by shifting the health sector's procurement policies and practices. The health sector can take advantage of its considerable economic leverage by "shopping green" – i.e., purchasing environmentally sustainable materials and products whenever possible, including those with minimal carbon impact. By doing so, the health sector can not only make its operations more sustainable but can help leverage broader change throughout the economy (WHO 2009).

CASE STUDY: Butaro Hospital – Rwanda

The Butaro Hospital in Burera District in northern Rwanda is an example of how a modern hospital in rural Africa can use innovative, green building design measures to create a cost-effective environment for quality health care. The hospital design provides a template and approach that could be replicated in resource-limited areas at high risk for tuberculosis (TB) transmission and other airborne diseases.

PHOTO CREDIT: IWAN BAAN

Burera District was one of the last districts in Rwanda without a functioning hospital and had very poor health indicators compared to other areas of the country. Crowded corridors and insufficient ventilation often put patients and health care providers at high risk of contracting airborne diseases inside health care facilities, especially in rural, impoverished settings. With this in mind, the Butaro Hospital used innovative design measures to reduce hospital-acquired infections and conserve energy by leveraging fresh air, solar passive design, and inexpensive ventilation.

The 150-bed facility serves around 400,000 people and can almost entirely forego air-conditioning systems due to the numerous operable windows on opposite walls to promote cross ventilation, with massive ceiling fans working in reverse to pull air upward. This generates significant energy savings, produces 12 air changes per hour, and effectively reduces the transmission of airborne diseases, such as TB, by up to 35 percent. Ultraviolet germicidal irradiation lighting further sanitizes the atmosphere, while orienting patient beds from looking at other sick patients to looking outside onto stunning landscape and garden views provides a greater sense of privacy and reduces stress and pain perception among patients. The well-planned exterior environment includes terraced gardens, shaded seating areas, and a children's play area to serve the dual purpose of creating gathering areas and preventing infection by eliminating enclosed spaces when possible.

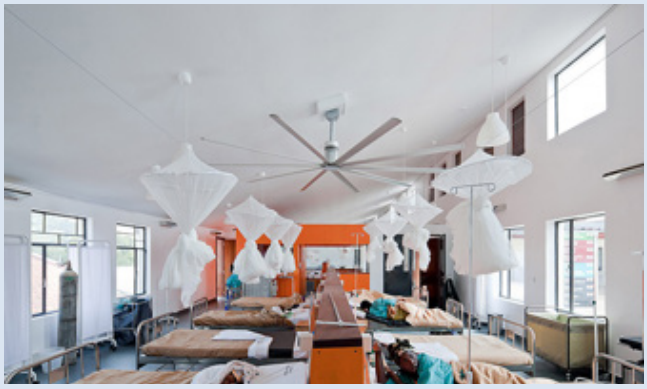


PHOTO CREDIT: IWAN BAAN

Opened in January 2011, the facility was a joint project of the Rwandan Ministry of Health, Partners in Health (PIH), and the Clinton Foundation. The project trained and paid nearly 3,900 area residents to excavate the site and build the facility. Minimizing machinery and using 100 percent local labor and low-impact materials, like local volcanic rock and wood, reduced the construction cost to $4.4 million, one-third less than the typical cost of a Rwandan hospital. Employing more laborers was cheaper and faster than bringing in expensive machinery and professional laborers to excavate the hillsides and move the earth — but more importantly, it provided the added benefits of creating jobs and community investment in the project.

SOURCE: MASS Design Group.

QUICK GUIDE TO AVAILABLE FUNDS

KNOWLEDGE GAPS

While there is growing evidence on the climate–health nexus, particularly around the entry points for early action, several research gaps remain. These gaps fall broadly into the following categories:

- **Building the evidence base**, particularly at more localized scales, for the links between climate change and health outcomes currently and under projected changes in climate and socioeconomic development pathways. Lack of data with which to build and validate climate–health models is often cited as a significant limitation. Moreover, health impact assessments typically identify impacts in the next 10–20 years, while climate change projections tend to assess impacts on a 50- to 100-year timescale. However, the past five years have seen an accelerated response to climate change and momentum is building across the health sector. According to the Lancet's indicators of progress on health and climate change, the number of scientific papers on health and climate change has more than tripled since 2007 (Watts et al. 2017).

- **Evaluating experiences in surveillance and early warnings** used in the health sector and identifying strategies for adapting these systems to a changing climate. A wide range of information and intelligence services exist to aid in planning for health services, providing a reliable, timely, and clear picture of how health indicators are distributed across a population. However, relatively few studies have been conducted on how these services are used to inform responses in developing countries, and more importantly, how these should be modified and strengthened to respond to emerging climate risks.

- **Making the case for early investments in climate action**. Several studies are already making the economic case for investing in adaptation and mitigation with co-benefits to improve health outcomes (see text box below). For example, halving GHG emissions by 2050 in relation to 2005 would reduce premature deaths caused by air pollution by 20–40 percent, depending on the country (UN Economic Commission for Europe 2016). The cost of specific climate actions (and by how much their costs could be offset by co-benefits) will vary, depending on the location, strength, and scope of implementation (Alexander et al. 2015).

- **Inventorying and assessing examples of good practices in public health adaptation and mitigation**, particularly in developing countries. To offer concrete solutions to the complex problems at the nexus of climate and health, the need is urgent to inventory and assess climate action strategies for health sector adaptation and mitigation. Such strategies range from smart hospitals that buffer residents from the adverse effects of climate extremes, to experiences in aligning climate and health agendas, to health approaches focused on building resilient health systems. Section 3.3 cites some pilot projects and examples of emerging good practices.

SUGGESTIONS FOR FURTHER READING ON COST-EFFECTIVE CLIMATE ACTION

Aunan, K. et al. 2006. Climate change and air quality—measures with co-benefits in China

Bollen, J. et al. 2009. Co-Benefits of Climate Change Mitigation Policies

Alexander, R. et at. 2015. How climate change mitigation makes economic sense

Garcia-Menendez, F. et al. 2015. U.S. air quality and health benefits from avoided climate change

UNECE. 2016. The co-benefits of climate change mitigation

1.3 HOW HAVE CLIMATE AND HEALTH BEEN PRIORITIZED IN STRATEGIES AND POLICIES?

CLIMATE CHANGE POLICIES AND STRATEGIES: PRIORITIZATION OF HEALTH

Health is widely recognized as a priority for adaptation (Figure 2). In 2010, the WHO assessed the inclusion of health as a priority within National Adaptation Programmes of Action (NAPAs) and found that over 95 percent (39 out of 41) of Least Developed Countries (LDCs) identified health as a priority in their NAPA. However, only 11 percent of the priority projects (50 out of 459) focused on health, and only 4 percent of the portfolio of the Least Developed Countries Fund (LDCF) funds supporting the NAPA process targeted health adaptation. This lack of initial project implementation may have stemmed from the facts that: the health community was largely absent from the NAPA process; the health sector did not submit proposals to the LDCF; and the technical guidance that was made available to ensure that proposals on health adaptation fulfilled minimum technical requirements was limited (WHO 2014b).

A review of the Intended Nationally Determined Contributions (INDCs) submitted prior to the 2015 United Nations Framework Convention on Climate Change (UNFCCC) Paris Climate Conference found that 66 percent (121 of 184) of the INDCs included any mention of health. Of these, 74 percent included health in the context of adaptation, while only 23 percent mentioned health in mitigation (Wiley et al. 2016). Upon ratifying the Paris Agreement, these INDCs converted to Nationally Determined Contributions (NDCs) that are expected to be updated every five years.

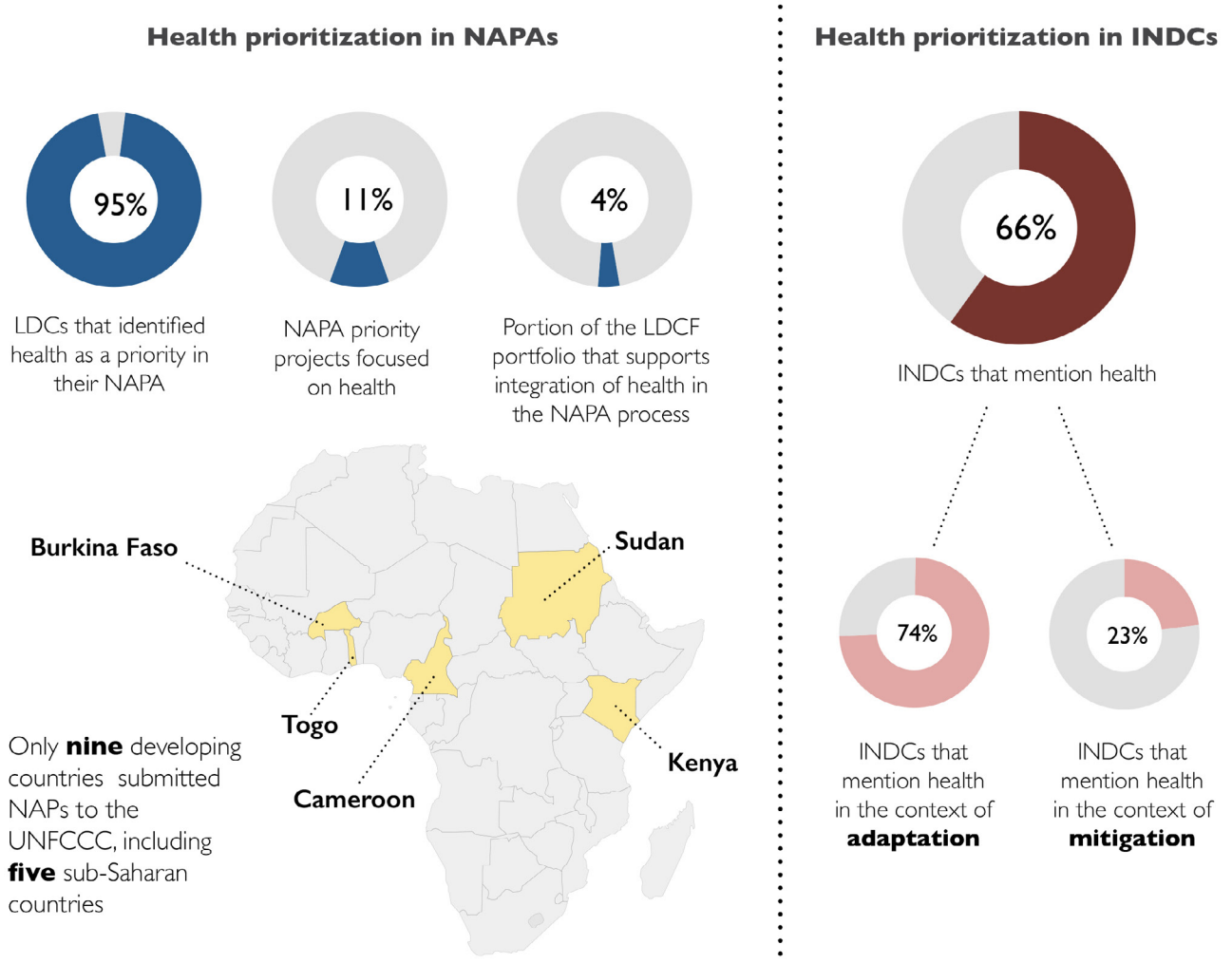
QUICK GUIDE TO UNFCCC CLIMATE CHANGE PLANS AND POLICIES

National Adaptation Programme of Action (NAPA) is a plan submitted to the United Nations Framework Convention on Climate Change (UNFCCC) by LDCs and Small Island States to describe countries' perceptions of their most urgent and immediate needs to adapt to climate change.

The National Adaptation Plan (NAP) process helps countries conduct comprehensive medium- and long-term climate adaptation planning and implementation. It is a flexible process with technical guidelines that builds on each country's existing adaptation activities and helps integrate climate change into decision making. The NAP process is not linked directly to a funding source and is undertaken by all countries. The NAP Global Support Program is a United Nations Development Programme /United Nations Environmental Programme (UNDP/UNEP) program financed by the LDCF to assist LDCs to advance their NAPs. Health National Adaptation Plans (HNAPs) are the health sector component of NAPs and are meant to encourage robust thinking and planning on health within the NAP process.

Intended Nationally Determined Contributions (INDCs) are international communications submitted to the UNFCCC by governments to document the steps they are taking to address climate change in their own countries. All INDCs were submitted by October 1, 2015, and as countries formally joined the Paris Agreement the INDC converted into a Nationally Determined Contribution (NDC).

FIGURE 2. HEALTH PRIORITIZATION IN NAPAS AND INDCS



While NDCs enable countries to share their adaptation goals, priorities, and actions with the international community, the NAP process provides a concrete means to achieve these initiatives. As of May 2018, nine developing countries have submitted completed NAPs to the UNFCCC, including five in sub-Saharan Africa: Burkina Faso, Cameroon, Kenya, Sudan, and Togo (Figure 2); and while several other countries are in the process of developing a NAP. Going forward, there is an urgent need to align the health adaptation planning process with the national process for developing NAPs (see Figure 3 for an example). Further participation of the health sector, in coordination with health-determining sectors like energy, agriculture, housing, and water, will facilitate greater access to funds made available through global climate finance and promote synergies and co-benefits across non-health sectors.

To help facilitate integration of health into climate change policies and strategies, the WHO developed guidance to assist countries in developing the health component of their NAPs (called a Health National Adaption Plan/ HNAP). The goal of the HNAP is to encourage stakeholders in the health sector to engage with the overall NAP process to identify national strategic goals for building health resilience and to develop a plan to achieve those goals (WHO 2014a).

FIGURE 3. KENYA'S NAP: PRIORITY ADAPTATION ACTIONS IN THE HEALTH SECTOR

HEALTH	
Action	Strengthen integration of climate change adaptation into the health sector
Summary	Kenya's recent improvements in malarial control, water-borne diseases, infant mortality and malnutrition are vulnerable to setbacks from climate change. Impacts on water quality, water resources, changes in habitat, increasing exposure of vulnerable groups, sanitation and drainage, and vector-borne diseases are all areas for concern. These and many other potential impacts require not only continued investment and focus on climate sensitive health issues, but also full integration of climate change into Kenya's many existing health programmes and policies. More action and support is required to achieve Kenya's development goals and project vulnerable populations.
Examples of ongoing projects/initiatives	Piloting Climate Change Adaptation to Protect Human Health in Kenya Project.
Gaps	Capacity building, financing, technology.
Short Term Sub-actions	• Undertake a climate vulnerability and risk assessment of the impacts of climate change and variability on human health. • Increase public awareness and social mobilization on climate change and impacts on health.
Medium Term Sub-actions	• Design appropriate climate change related interventions for the health sector. • Design appropriate measures for surveillance and monitoring of climate change related diseases in order to enhance early warning systems which includes enhancing existing databases on health sector indicators amongst others.
Long Term Sub-actions	• Upscale results of pilot projects in climate change adaptation in the health sector
Budget	US$ 40,101,582
Responsibility	Ministry responsible for health, MDAs, Country Governments, research institutions and academia, civil society and private sector.

SOURCE: Government of Kenya, 2016

HEALTH POLICIES AND STRATEGIES: PRIORITIZATION OF CLIMATE CHANGE

Public health professionals are essential to drive forward progress to better understand and respond to the impacts of climate change. While much of the climate–health literature has focused on establishing and projecting public health impacts of climate change, action to integrate climate change in health policies, strategies, and funding has been slow, particularly compared to sectors like agriculture and water. Operational frameworks and toolkits for climate-resilient health systems were released in recent years (see text box below), but prioritization of climate change in health program funding has been inconsistent. For example, many international health organizations working with climate-sensitive diseases often do not include how they are incorporating climate specific risks in planning and implementation.

FRAMEWORKS, GUIDANCE, AND TOOLKITS FOR CLIMATE-RESILIENT HEALTH SYSTEMS

Adaptation to Climate Change in Africa: Plan of Action for Health Sector (2012)
Health Care Facility Climate Change Resiliency Toolkit in Canada (2013)
WHO Guidance To Protect Health From Climate Change Through Health Adaptation Planning (2014)
WHO Operation Framework on Building Climate Resilient Health Systems (2015)
The U.S. Sustainable and Climate Resilient Health Care Facilities Initiative (2016)

Public health organizations and government stakeholders may not have yet prioritized and developed effective adaptations to climate-sensitive health threats for several reasons, including: lack of awareness of climate–health linkages and the governance mechanisms to manage them; inadequate institutional and technical capacity to design plans; limited funds to implement plans; weak health systems; and weak intersectoral collaboration (WHO 2015b). Additionally, in regions with less public health infrastructure, adaptation to climate change may not be seen as an immediate risk compared to other concerns, such as access to basic public health services and essential medicines and vaccines (Hess et al. 2012).

In addition, climate change presents unique challenges for integration within health policies and strategies. Climate projections usually reference longer timescales and cover larger geographies that have little practical relevance to health assessments that require downscaled information on shorter timescales. Moreover, climate projections are subject to multiple uncertainties, and climate-related health challenges are strongly determined by local context. Consequently, evidence is lacking on the health outcomes of climate and weather variability; the scope for extrapolation from the studies that do exist is limited, given that results are highly context-specific. Such management challenges add complexity and delays to the development of effective health sector adaptation strategies. They highlight the need for strategies and approaches that recognize uncertainty, and emphasize adaptive management to respond to this uncertainty, allowing adjustment as evidence improves and causal linkages become clearer The Health in All Policies approach is a potentially useful guide for policy makers in the dynamic operating environment (see box below).

WHAT IS THE HEALTH IN ALL POLICIES APPROACH?

The 'Health in All Policies' (HiAP) approach is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. It identifies ways in which decisions in sectors across the board affect health, and vice versa. (WHO 2013)

Section 2: The Finance Landscape

IN THIS SECTION

2.1 GLOBAL FUNDS

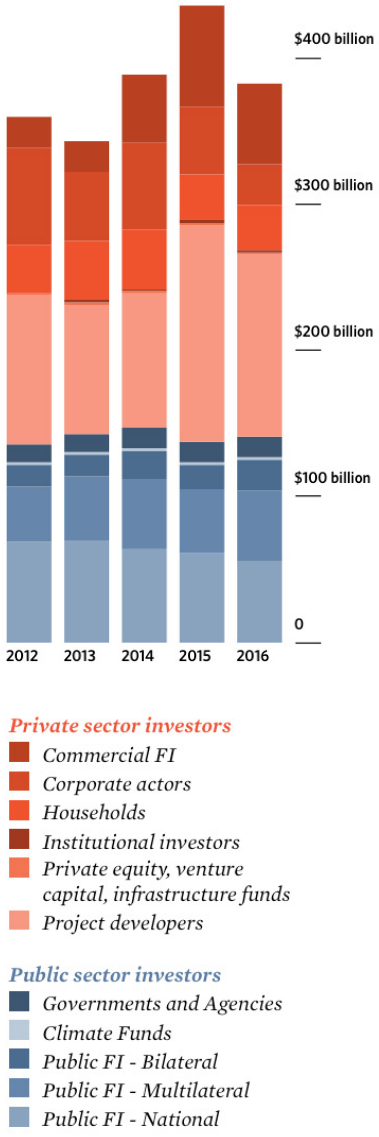
WHO IS CONTRIBUTING TO GLOBAL CLIMATE FINANCING?

The global commitment under the UNFCCC is to mobilize $100 billion per year by 2020 from a wide variety of sources to address the adaptation and mitigation needs of developing countries. Estimating total climate finance is challenging due to different approaches used for 1) tracking finance among development finance institutes, and 2) tracking finance for domestic budgets and private investment. Nonetheless, funding for developing countries to address climate change (both mitigation and adaptation) is increasing and a number of global financing mechanisms are available. These include:

- **Multilateral public funds** supported by donor countries' pledges.
- **Bilateral public finance** administered largely through existing development agencies.
- **Private finance** (e.g., foundation, financial institutions, commercial companies).
- **Regional and national funds** resourced through international finance, domestic budget allocation, and/or the domestic private sector.

In 2016, an estimated $383 billion in total public and private international financing was dedicated to climate change (see Figure 4 for a breakdown) (Buchner et al. 2017).

FIGURE 4. PRIVATE AND PUBLIC CLIMATE FINANCE BY PRIVATE AND PUBLIC SECTOR ACTORS, 2012–2016 (BILLION $)



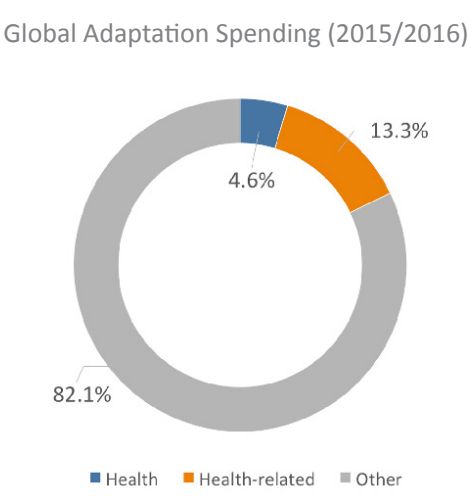
FI = financial institution

Source: Buchner et al. 2017

QUICK GUIDE TO AVAILABLE FUNDS

The majority of this financing went toward mitigation (particularly renewable energy), while only $25 billion was provided from public sources for adaptation (primarily water and sanitation, agriculture, and land use). Geographically, most adaptation funding went to East Asia and the Pacific (46 percent), followed by sub-Saharan Africa (13 percent), and Latin America and the Caribbean (12 percent) (World Bank 2017). Climate finance to developing countries is largely offered through grants and concessional loans, but the use of guarantees and equity investment is increasing, particularly as funds seek to enable private investment. The Green Climate Fund (GCF) portfolio is the first fund to include equity, with $56 million across three projects. The GCF is the world's largest fund dedicated to fighting climate change; in 2016 – its first full year of operation – the fund approved $1.5 billion for 35 projects to be implemented by 48 Accredited Entities.

FIGURE 5. GLOBAL ADAPTATION SPENDING AS A PERCENTAGE, FINANCIAL YEAR 2015–2016



HOW MUCH GLOBAL CLIMATE FINANCE IS SPENT ON HEALTH?

Despite the health sector's potential for mitigation via low-carbon health care strategies and its significant and rising costs related to adaptation, the health sector has been largely excluded from global climate financing. In the 2015–2016 financial year, only 4.6 percent ($16.46 billion) of the world's total adaptation spending was spent on health directly and 13.3 percent ($47.29 billion) was spent on health-related adaptation (such as food and nutrition and disaster preparedness) (Figure 5) (Watts et al. 2017). A survey of the multilateral funds that support climate adaptation also indicated that only about $9 million – only 0.5 percent – of over $1.5 billion of dispersed funding has been allocated to projects that specifically address health (WHO 2018).

WHAT ABOUT GLOBAL HEALTH FUNDS?

As mentioned in Section 1.3, prioritization of climate change in health programing funding has been slow to mobilize. However, as the evidence base for the linkages between climate and health grows, large health funds like the Global Fund and Unitaid are likely to increase their funding for actions that mitigate the impact of climate change on target populations. See Section 2.4 for more information on specific funds.

WHAT ARE THE BARRIERS AND OPPORTUNITIES FOR ACCESSING GLOBAL FUNDS?

The increasing availability of diverse funding channels adds new options and possibilities for governments to access climate finance, but it can also make the process more complicated. This section outlines the barriers to and opportunities for obtaining funding from global climate and health funds, as well as from the private sector.

Some common barriers to accessing this financing are listed in Table 2, along with opportunities to overcome them. These barriers are specific to the climate–health nexus and do not cover every issue countries face when trying to access global funds.

TABLE 2. CLIMATE–HEALTH-SPECIFIC BARRIERS AND OPPORTUNITIES TO ACCESSING GLOBAL FUNDS

BARRIERS	OPPORTUNITIES
Lack of information » Detailed information about where and when climate will impact countries' health sector is lacking, along with information on how best to respond. » The linkages between climate change and health are often complex and indirect, making attribution of climate change effects on health outcomes challenging. **Access to climate funds** » The majority of climate funds are administered by a designated funding agency (e.g., the World Bank) and accessed in each country through an approved implementing partner (e.g., the Ministry of Environment), excluding the WHO (an important stakeholder) from these agreements. » Health funding for climate-related health adaptation is minimal. » A mismatch in terminology between the health sector and the adaptation sector poses challenges to building the case for climate change adaptation in the health sector. [1] **Weak policy coordination** » Ministries of health in developing countries are often underfunded and lack capacity; they are often overwhelmed with addressing immediate threats with limited budgets. » Working across and coordinating with ministries that traditionally work on climate- and weather-related issues, such as meteorological and environmental agencies, and ministries of health is challenging.	**Improve access to and knowledge of opportunities** » Ministries of Health can establish specific task teams and/or seek out collaborations with other ministries and GCF Nationally Designated Authorities to build appropriate information-sharing networks to work on climate change health vulnerability assessments and adaptation planning. » The WHO is supporting countries' development of HNAPs (Health National Adaptation Plans), which promise to articulate risks and opportunities for action. » Experience across the developing world is showing the value of investing in improved combined health and climate surveillance systems under conditions of limited capacity; these systems could be readily implemented in many countries. **Align health goals alongside climate objectives** » The WHO is currently in the process of applying for accreditation to the UNFCCC financial mechanisms. This has the potential to improve facilitation and access. » Many donors are exploring methods to link health outcomes to development investments and the Sustainable Development Goals, making a stronger case for investing in the health sector. **Consider a "Health in All Policies" type approach to integrate climate considerations into health system policy** » New leadership within the UNFCCC is poised to place greater emphasis on the health sector in coming years. » The 2008 Libreville Declaration of African Ministers reaffirms the need to establish a health and environment strategic alliance as the basis for plans of joint action. » The 2018 Third Inter-Ministerial Conference on Health and Environment in Africa - a follow on to the 2008 Libreville Declaration of African Ministers - laid out a strategic action plan for 2019 to 2029 to accelerate the integration of health and environment priority actions into national development policies

[1] The 10 Essential Public Health Services Framework outlines prevention under three categories: primary, secondary, and tertiary. These broadly link to adaptation concepts of reducing exposure, preventing the onset of adverse outcomes, and responding (treatment) to these outcomes. Nevertheless, this is poorly understood in the adaptation field, so proposals are often deemed of such limited quality that they deter investment.

2.2 PRIVATE SECTOR FINANCING

The World Bank estimates that between 2010 and 2050, the global annual costs of adaptation may cost between $70 and $100 billion per year; of this, an estimated $1.5 to $2 billion are health-related costs, with Sub-Saharan Africa shouldering nearly 80 percent of total costs (World Bank 2010). In 2015 and 2016, total global adaptation finance totaled $22 billion, the entirety of which was provided by public sector organizations (Climate Policy Initiative 2018). The costs of adaptation in developing countries continues to rise, and with it, an emphasis on private finance since the public sector is not expected to be able to singlehandedly contribute the volume of finance needed to support climate and health financing. As such, accessing private sector financing for climate and health actions is a central element to strengthening sub-Saharan Africa's resilience.

THREE MAIN CATEGORIES OF PRIVATE SECTOR INVESTMENT IN CLIMATE AND HEALTH

1. **Private entities in the health sector** investing in climate adaptation measures out of self-interest.
2. **Private entities not directly in the health sector** investing in the health sector to protect some aspect of their operations (e.g. clean and abundant water) or protect their workforce (e.g. investments in climate-sensitive disease treatment and prevention).
3. **Private finance** provided by banks, insurance companies, etc. in the health sector.

The private sector includes corporations, small-businesses, households, commercial banks, microfinance institutions, institutional investors, and private equity, venture capital, and infrastructure funds. These entities can be categorized into two main sources of private finance: private enterprises and private financiers. While private enterprises can support adaptation efforts by adapting or "climate-proofing" their operations with climate-resilient products, supply chains, and services (e.g. drug companies investing in cold storage upgrades to improve vaccine supply chain operations), private financiers can provide direct financing for the implementation of adaptation actions. To date, private finance in addressing climate risks have focused largely on investment in mitigation as there is a much clearer return on investment in mitigation activities than adaptation. Within the adaptation and health nexus, the private sector is essential for mobilizing resources to address future climate-sensitive health challenges, and in the effective delivery of health services. Adaptation actions in learning and innovation, such as developing multi-hazard early warning systems and information communications technology (ICT) for improved health service delivery, are potential roles for the private sector (UN Environment 2016).

As the threat from climate variability and change increases, so do risks for business through disrupted supply chains, which are important to provide health services, and particularly vulnerable in developing countries which may already suffer from poor infrastructure and challenges to store temperature sensitive items. For example, climate change threatens availability of natural resources, such as water, vital infrastructure and utilities, transport and logistics routes, fluctuating price and market volatility, and unpredictable impacts on the workforce and consumers, all of which are important to a functioning health system. These threats require action and a comprehensive strategy for resilience to manage business risk and ensure long-term returns on investments. Since many of these supply chain issues could impact a business enabling environment, the private sector plays an important role in both reducing emissions and adapting to climate change (Cameron et al. 2015). Areas of potential private sector investment specific to the health sector that could simultaneously improve business and community resilience include:

» **Investing in climate-proofing upgrades for privately-owned healthcare infrastructure (e.g. hospitals, clinics, pharmacies, warehouses, laboratories), including:**
  - Installing green roofs, bioswales, and other green infrastructure elements to control stormwater runoff and mitigate flooding
  - Rainwater harvesting and grey water recycling
  - Improved insulation

- Cold storage upgrades
- Improved back-up power generation capabilities
- Relocating sensitive equipment and mechanicals to higher floors or the roof
- Relocating or building facilities in low risk areas

» **Funding – either directly or through a PPP – climate change adaptation measures for elements of the health supply chain, including:**
  - Operations and efficiency of cold storage facilities and the cold chain
  - Transportation and shipping networks
  - Forecasting and ordering systems

» **Investing in interventions to protect and preserve water availability and quality, including:**
  - Watershed and wetlands rehabilitation
  - On-property measures to promote groundwater infiltration, including retention areas, tree planting, and rain gardens
  - Upgrades to and climate-proofing of health care facility sewerage and waste disposal systems

» **Providing funding for climate-sensitive healthcare improvements to protect workers and the communities in businesses operate, including:**
  - Indoor residual spraying for mosquitoes
  - Insecticide-treated bed nets
  - Water supply and sanitation upgrades
  - Water testing and treatment

» **Funding additional research on the impacts of climate change on the health sector**

» **Reducing emissions and enhancing adaptive capacity through investments, procurement, and use of energy, land, and transportation.**

» **Enabling climate resilience in other sectors and in the communities in which they operate through their innovations, products, and services.**

» **Working with governments and other stakeholders to create the right policy and financial environment for a low-carbon and resilient future.**

WHAT ARE THE BARRIERS AND OPPORTUNITIES IN PRIVATE SECTOR FINANCING?

Interest is growing in understanding how the private sector may help finance climate change action. Comprehensive information on financing flows is essential in order to identify entry points to mobilize private finance. Despite progress to date, data gaps in measuring and reporting private financial flows persist due to limited analysis and research on private investments, particularly by domestic actors, in climate change adaptation (Parry et al. 2017; UN Environment 2016). A combination of factors explains this knowledge gap – including differences in terminology and the consideration of 'adaptation actions' as part of broader business risk management – and make private sector investments in these activities difficult to track (UN Environment 2016; IISD 2017).

Furthermore, private investment focused on climate change overall is predominately devoted to mitigation, where mitigation actions often align with cost reduction and profit growth. Finding ways to make climate change adaptation attractive to private sector stakeholders by appealing to profit motives is a bigger challenge. To the extent that the private sector has begun investing in climate change adaptation, most attention has been given to the massive challenge of climate-proofing private infrastructure and systems. Very little attention has been given to adaptation measures directly addressing health sector impacts. It is also difficult to assess the quantity and quality of private sector investments in climate finance due to the lack of tracking and reporting of investments. Specifically, limited quantitative data exists on climate risks within the health sector, the ripple effects on businesses, investments, and finance, and the quantitative value of adaptation measures the private sector can take (Mercer 2011).

TABLE 3. CLIMATE–HEALTH-SPECIFIC BARRIERS AND OPPORTUNITIES TO ACCESSING PRIVATE SECTOR FINANCING

BARRIERS	OPPORTUNITIES
Lack of information » Few private sector healthcare actors have conducted assessments of climate risk to their business operations and do not have the internal knowledge or capacity to evaluate climate science (Biagini and Miller 2013; Agrawala et al 2011). » Companies often perceive climate variability and change as primarily an environmental issue that does not impact their business operations and plans, leading to underinvestment in adaptation-specific actions (Biagini and Miller 2013). » Lack of investment in epidemiological and climate variability data that would identify entry points for private sector financing.	**Engage private sector** » Integrate climate risks into business operations through targeting technologies such as clean energy or energy efficiency to improve air quality. » Increase a shared public–private understanding of adaptation to spur investments and public–private partnerships (PPPs) (see section below for more information). » Improve comprehensive estimates of the co-benefits of adaptation and mitigation policies to clarify tradeoffs and synergies. » Engage the private sector in pioneering new approaches and technologies (e.g. introducing tax credits for investment in research and development of pharmaceuticals) that can reduce the costs of direct and indirect climate change impacts on health. » Ministries of Health can ensure that representatives from private medical associations are included on inter-agency coordination committees (Marek et al 2005). » Create permanent committees, business coalitions, or professional chambers within ministries of health to improve partnership with the private sector. » Encourage the private sector to develop business and investment plans that use climate information and incorporate actions to increase resiliency.
Weak outreach » The private sector has historically had limited involvement in policy and decision-making processes, such as cross-sectoral national adaptation priority development and planning.	**Support implementation of prioritized adaptation actions** » Involve the private sector in the development and implementation of Health National Adaptation Plans (HNAP) that mainstream climate risks into health policies, programs, and services. » Improve the tracking and reporting of private investment in adaptation actions specific to the health sector and identify gaps. » Mainstream approaches to climate-related risk across banking teams and monitor adaptation finance to expand adaptation investments. » Improve private sector's understanding of climate risk, specific to the health sector (Vivid Economics 2015).
Lack of incentives » Incentives to invest in adaptation now are lacking, as benefits may not be realized for years. » Lack of a stable legal and regulatory framework creates uncertainty and does not incentivize private sector investment (e.g. outdated standards, centralized enforcement) (Marek at al 2005). » Subsidies on fossil fuel provide perverse incentives. » Long time-scales and uncertainties inherent in climate change are at odds with the much shorter time horizons within which most businesses operate (UN Environment 2016).	**Incentivize climate investments** » Identify and map areas at highest risk of negative outcomes to target investments in health infrastructure, medical supplies, and drugs. » Phase out fossil fuel subsidies to improve air quality by reducing soot emissions. » Adopt carbon pricing instruments that require those responsible for producing emissions to pay for them. » Use revenues to finance adaptation, mitigation, or environmental tax reform, which involves shifting the burden of tax from negative activities (e.g., the generation of pollution) to positive activities (e.g., workforce health or environmentally beneficial products or activities). » Facilitate investment through resources audits and an improved regulatory environment (e.g. building codes on flood protection, planning rules, financial disclosure regulations). » Disseminate scientific information, models, and decision-support tools on weather and climate risks to the health sector and the co-benefits of investment in adaptation (Vivid Economics 2015).

In addition, while there is growing recognition of climate risk to their businesses among large national and multinational corporations, the private sector overall remains underinformed about adaptation measures. Where the private sector does act on adaptation, its focus is generally to improve resource efficiency (e.g., investments in renewable energy and efficiency operations) or to address land degradation (e.g., agribusiness adaptation, water conservation), but not directly on health. Unlocking the potential for investment in climate solutions by private enterprise also requires sustained action by governments to put in place the right set of policies and measures, such as competitive voucher programs (e.g., to subsidize insecticide-treated bed nets for malaria), blended finance, and strong enabling investment environments.

Creating these enabling systems through robust, health-specific policies and regulations is one way to remove barriers and incentivize private sector investment in services, technologies, and other products that will mitigate the impact of climate variability on the health sector. For example, two programs in the Horn of Africa and Senegal engaged private sector stakeholders in the development of a 'weather insurance' scheme to protect farmers from drought and resulting food shortages. Providing the private sector with information on impending or updated regulations and the potential market opportunities and compliance cost implications could also motivate businesses into taking or financing adaptation measures (Vivid Economics 2015).

Table 3 summarizes the main barriers, and subsequent opportunities, to private sector engagement in climate finance.

WHAT IS A PPP?

Public–private partnerships (PPPs) are one way the public sector may engage the private sector in adaptation and mitigation. PPPs commonly incorporate three key elements:

1) A **contractual agreement** defining the respective roles and responsibilities of public and private actors

2) **Risk sharing** among public and private actors, and

3) A **financial reward** for private parties clearly defined in contractual and risk-sharing arrangements.

PUBLIC–PRIVATE PARTNERSHIPS

The diversity of the private sector is an opportunity for contributions to adaptation and mitigation action. Governments can use public funds to catalyze private financial flows toward the implementation of adaptation priorities. Public–private partnerships (PPPs) are an example of this type of collaboration. To realize the full potential of private sector finance, governments need to: 1) understand the sector's diversity, motivations, and existing investments in climate adaptation and mitigation; and 2) identify where opportunities exist to further engage this sector in climate action by creating a supportive investment climate and providing relevant information, incentives, and economic signals.

PPPs are highly collaborative and offer an opportunity for governments and the private sector to jointly make decisions around climate adaptation and mitigation in the health sector (Marek et al 2005; Whyle and Olivier 2016). PPPs offer the opportunity for governments to leverage the expertise of the private sector to improve the quality, accessibility, and efficiency of public healthcare systems without burdening public finances (IFC 2010). The risk- and reward-sharing nature of these partnerships can help countries access financing for public projects, such as climate-proofing health facilities, which are often difficult to attract private funding (USAID 2019). As such, PPPs can be a solution for service delivery and sustainability challenges often faced by public services institutions because of the traditional role of the private sector as data and information providers, logistic operators, and investors in research and development.

The private sector brings capital and knowledge, in addition to access to technology and management practices, that can result in greater efficiency within the health sector. In this light, PPPs can also be used to increase health care coverage by using existing providers, increase geographical coverage in areas where the government is not present, improve the operation of public health services and facilities, and to expand high quality services. Another key advantage of PPPs in health is that they can provide access to clinical skills that may be scarce or concentrated in the private sector. Finally, PPPs can emphasize economic incentives for public health measures which contribute to worker productivity and national economic development (Abuzaineh et al. 2018).

While PPPs have the potential to strengthen countries' abilities to undertake health adaptation actions, there are several risks that need to be considered. For an effective and successful PPP, a robust legal and regulatory framework and enabling environment are needed to minimize risks of corruption and ensure transparency, accountability, and compliance. PPPs need to be tailored to the local context and should carefully balance the government and private partners' interests (USAID 2019).

PPPs can be particularly well suited for the following types of projects (Parry et al. 2017):

- **Innovation, research, and development.** PPPs provide the long-term commitment needed by the private sector to invest in innovations that can facilitate anticipatory adaptation, including health and climate surveillance systems, early detection tools (e.g., rapid diagnostics, syndromic surveillance), new delivery channels for pharmaceuticals, and the development of anti-malarial agents.
- **Information and technologies.** PPPs improve climate information and services through technologies that support business decisions and capacity, such as information communications technology (ICT) for improved health service delivery, decision support systems linking health and weather data to provide health information on climate-sensitive infectious diseases or agricultural, and weather data to manage the use of drought-resistant seeds that supplement nutritional intake and could ensure a dependable food supply (Marek et al 2005).
- **Enabling resilient (green) infrastructure and systems.** PPPs can help upgrade and finance new, climate-resilient infrastructure for key vulnerable sectors where large "public good" infrastructure is needed but cannot be provided cost-effectively by governments alone, such as retrofitting medical facilities, providing medical equipment, and locking new investments into clean, low-cost alternatives.

Although not climate-related, the World Bank/International Finance Corporation's (IFC) *Toluca and Tlalnepantla Hospitals Public-Private Partnership Project* is an example of an innovative integrated PPP. The project was designed to bring the private and public sectors together in a transparent and streamlined competitive process to reduce risk and encourage private sector investment in health, specifically hospitals and primary care (see box below). This dual-pronged approach provides lessons for similar initiatives and PPPs addressing the climate-health nexus. It demonstrates that creating a low-risk enabling environment, supplemented by technical assistance and capacity building, are key ingredients for incentivizing private sector investment in adaptation measures.

In the context of climate resilience, governments and state-owned medical facilities (e.g. hospitals and clinics) could apply a similar approach, through competitively soliciting private sector investment in health facilities and medical technologies with lower environmental footprints (e.g. construction of LEED-certified facilities; adoption of solar photovoltaic cells in hospitals; water pumps, vaccine chains; and power generators fueled by renewable energy). These technologies would yield benefits through providing independent water and energy supplies, reliable and cost-effective electricity, improving indoor air quality, and ensuring uninterrupted health operations during extreme weather events (WHO 2015d; WHO 2018).

PRIVATE FOUNDATIONS: CHALLENGES AND OPPORTUNITIES

Private foundations can be an important partner for health ministries by funding various international health programs that align with NAPs or national policies. Foundations and governments share a common determination to use their resources towards finding solutions (Radner 2011). As such, there are opportunities for collaboration to devise and scale up ideas and approaches for adaptation. Foundations often provide much-needed technical assistance and capacity-building and are willing to take risks on innovative products and services that will have an impact beyond their initial investment. However, government ministries trying to access funding from foundations face two major barriers:

Breaking New Ground: Toluca and Tlalnepantla Hospitals Public-Private Partnership

PHOTO CREDIT: Currie & Brown

In 2010, the World Bank/IFC supported the government of Mexico's state health insurer, the Institute of Social Security of the State of Mexico and Municipalities (ISSEMyM), to develop an innovate PPP for two new 120-bed hospitals in the densely populated industrial zones of Toluca and Tlalnepantla. IFC worked with ISSEMyM to define the structure and implementation of two PPPs for the design, construction, capital financing, and management of two new public hospitals in both cities. The two PPP contracts allow for greater transparency in a country context where public bidding still lacks transparency, resulting in increased market confidence in similar mechanisms. The Toluca tender attracted bids from three consortia representing 11 companies, while in Tlalnepantla, four consortia representing 15 companies submitted bids. The 25-year contracts were awarded in October and November 2010; in both cities, the PPPs attracted private investment totaling $120 million. At each hospital, the partnership will deliver enhanced medical services to over 10,000 inpatients annual, serving a combined population of approximately one million people.

The IFC-supported PPP was designed as a model for other states in Mexico to replicate. First, the transaction was designed based on the concept of buying services instead of assets, structuring a replicable model of private finance initiative (PFI) contracts for social infrastructure in Mexico called PFI+. Under this model, the government assumes responsibility for the hospital's doctors, nurses, and medical supplies, while the private provider oversees construction and provides facility and equipment management, as well as delivery of most of the diagnostic services for the 25-year duration of the contracts. This partnership model not only cut the overall hospital operations costs by one-third, it also secured continued infrastructural maintenance and provision of diagnostic services for the duration of the contracts. The contract was also structured to be environmentally conscious by including a requirement for the construction and operation of the hospitals to be silver LEED certified. As a result, the hospitals are anticipated to see energy savings of at least 20 percent and are expected to contribute to emissions reductions by about 10 tons of CO_2 equivalent per year.

The IFC-supported PPP received the Latin American PPP Deal of the Year 2011 award from the ProjectFinance magazine.

SOURCE: IFC 2011

TYPES OF FOUNDATIONS

Two types of foundations exist:

Public charities, which generally receive a greater portion of their financial support from the general public or governmental units, and

Private foundations (e.g., family foundations, private operating foundations, and corporate foundations), which are typically controlled by a small group of individuals or a family; they secure support from a small number of sources and/or investment income.

Governments are not eligible recipients. Private foundations often have repeat grantees they invest in from year to year, and public health ministries often do not qualify to receive direct grant assistance from most foundations. Instead, foundation staff identify high-impact organizations that align with their funding priorities and invite them to submit a proposal. Foundations will also use Requests for Proposals related to specific grant initiatives to invite a broader pool of applicants; however, this still usually excludes governments (although not always; eligibility requirements vary from opportunity to opportunity).

Funding is targeted and sometimes low compared to the amount required by governments. Many private foundations have specific objectives and goals they fund with grants ranging on average from $10,000– $250,000. This means that not only is the funding amount relatively small compared to national governments' needs, it is usually for a very targeted objective. While most foundations do not accept unsolicited requests for funding, reaching out to foundation board members or sending a letter of inquiry to the foundation's street address or by email to a grant officer may help establish an avenue for future partnerships. Some private foundations (e.g., Ford Foundation) accept rolling idea submissions or letters of inquiry (although in a typical year, less than 1 percent of unsolicited grant ideas result in funding).

Although funding from foundations may not always be directly accessible by governments, it is helpful to understand the foundation funding landscape, particularly as many require grantees to align with government priorities and/or have a strategy for scaling up initiatives through the public sector. A list of relevant foundations can be found in Annex A.

SUMMARY

Globally, governments and civil society organizations have mostly focused on the role of the public sector in financing climate change adaptation (Parry et al. 2017). However, the current level of public sector funding available for adaptation in developing countries will not be enough. Countries need to develop the institutional capacity not only to independently, efficiently, and effectively access and manage international funds, but also to mobilize additional private sector resources.

Section 3: Accessing Funding: Resources and Experiences

IN THIS SECTION

This section summarizes general good practices and resources available for proposal development and highlights several projects that have integrated climate-resilient considerations into health systems.

3.1 GOOD PRACTICES FOR PROPOSAL DEVELOPMENT

To be successful, climate–health interventions need to rely on a wide range of expertise to address the societal, cultural, environmental, political, and economic contexts that increase vulnerability. Working with stakeholders can help ensure individual and community acceptance of the intervention, along with reducing constraints to implementation. For example, effectively addressing the health impacts of increases in the frequency and intensity of floods will need community engagement, as well as interagency coordination across many agencies, including those responsible for public infrastructure, health, and emergency management. Good proposal development will also need to overcome the knowledge gaps and barriers identified in previous sections with regard to the lack of information and empirical evidence on downscaled climate risks and impacts, as well as the efficacy of proposed solutions. Proposal writers should consider some of the following best practices when developing proposals:

- Know the policy and project landscape to ensure that the strategy aligns with existing national and subnational strategies
- Clearly articulate how the proposed set of activities will achieve the desired outcomes and objective (e.g. logic framework, theory of change)
- Identify any substantial technical, operational, financial, social and environmental risks and propose mitigation measures
- Screen for gender-specific climate impacts and negative project impacts on women; incorporate gender-related actions and strategies
- Understand the procedures, rules, and requirements of the financier (e.g. formatting, eligibility, decision criteria, access modalities, etc.)

Climate Finance Ready: Knowledge Exchange for Climate Finance Readiness – Provides practitioners and others with best practices, news articles, links to resources, opportunities for sharing experiences, and more. It was developed in partnership with the Adaptation Fund (AF), but recently is more focused on providing support to accessing the Green Climate Fund (GCF).

3.2 RESOURCES FOR PROPOSAL DEVELOPMENT

A growing number of initiatives, organizations, and donor-funded projects are dedicated to helping countries access funds. These resources tend to be targeted assistance to a specific region or country, or for a specific sector. Some global funds have resources dedicated to assisting proposal development (such as the Green Climate Fund Proposal Toolkit). Due to the variety of timescales (short-term versus long-term), types (capacity building, technical assistance, direct funding), and geographic priorities of assistance, it is difficult to summarize available resources. Nevertheless, some useful documents offer general guidance for developing strong proposals, as follows.

PREPARING ADAPTATION PROJECTS

- Guide to Climate Change Adaptation Project Preparation – Aims to assist government and nongovernment agencies at all scales in preparing bankable climate change adaptation proposals to access various sources of financing.
- Community-Based Adaptation the Health Impacts of Climate Change – Discusses community-based adaptation as an approach to proactive implementation of programs and activities necessary to cope with a changing climate, including using storylines to facilitate community preparedness.
- Integrating Gender in Climate Change Adaptation Proposals – Provides a sourcebook intended for individuals and teams who prepare large-scale climate change adaptation (CCA) project proposals to effectively incorporate gender considerations into CCA proposals.
- Designing Climate Change Adaptation Initiatives: A UNDP Toolkit for Practitioners – Provides step-by-step guidance for planning and designing a measurable, verifiable, and reportable adaptation initiative.
- Defining Country Systems for Climate Change Adaptation Finance – Discusses how countries can strengthen their systems and take action to improve climate-responsive planning and budgeting, as well as improve preparedness to access external climate funds.

RESOURCES FOR HEALTH SECTOR ADAPTATION AND MITIGATION

- Climate Change and Health: A Tool to Estimate Health and Adaptation Costs – Provides a tool for economic analysis of the health-related costs of climate change, the costs of adaptation measures, and the returns to adaptation measures in terms of averted health costs (developed by the WHO Regional Office for Europe).
- Climate-Smart Healthcare – Discusses low-carbon and resilience strategies for the health sector to give management and task teams the tools and resources necessary to improve development action on climate change and health.
- Healthy Hospitals, Healthy Planet – Based on the deliberations and recommendations of the World Health Assembly, discusses opportunities and benefits of mitigating the health sector's climate footprint.

» Operational Framework for Building Climate Resilient Health Systems – Provides guidance to decision-makers within both the health sector and other health-determining sectors (e.g. nutrition, water and sanitation, and emergency management) on how the health sector can systematically focus investments in public health and health system strengthening to respond to the challenges of climate variability and change.

ENGAGEMENT WITH OTHER SECTORS

» Connecting Global Priorities: Biodiversity and Human Health – Synthesizes the available information on the connection between biodiversity and health and the benefits of closer partnerships between conservation and health.

» Managing the Linkages for Sustainable Development: A Toolkit for Decision-Makers – Introduces a "toolkit" to support integration of environment and health considerations into decision making.

3.3 SELECT CASE STUDIES OFFERING INSIGHTS FOR BUILDING CLIMATE-RESILIENT HEALTH SYSTEMS

In spite of the limited investment made to date on financing climate-resilient health systems, examples of good practices do exist. These can point the way forward to increasing health sector finance in the area of climate variability and change. A few examples are highlighted here.

CASE STUDY 1: WITHSTANDING THE STORM: BUILDING CARIBBEAN HOSPITALS TO COPE WITH NATURAL DISASTERS

PHOTO CREDIT: STLUCIANEWSONLINE.COM

"The most expensive hospital is the one that fails." If built or retrofitted to cope with extreme weather events, hospitals can save money and continue to provide services when they are needed most, especially during disaster scenarios. The Pan American Health Organization's Smart Hospitals program, launched in 2015 across the Caribbean, promotes green and "smart" hospitals by investing in technologies and improvements that not only ensure their functionality during disasters, but also reduce operating costs and their environmental footprint. To identify and finance green and smart investments, the Smart Hospitals Toolkit works through a three-step framework to: 1) determine the probability that a health care facility will be able to continue functioning in an emergency; 2) assess how the building measures up against current code, regulatory requirements, and zoning regulations; and 3) outline feasible areas where "smart" measures can be introduced, such as solar water heaters and adequately located backup power sources. Following the 2017 hurricane season, this investment shows promising signs of paying off. For example, facilities under the smart, green hospitals initiative in St. Kitts and Nevis not only survived the storms, but also became a source of water for area residents when loss of power limited water availability for days.

CASE STUDY 2: MADAGASCAR CLIMATE CHANGE AND HEALTH DIAGNOSTIC: RISKS AND OPPORTUNITIES FOR CLIMATE-SMART HEALTH AND NUTRITION INVESTMENT

In Madagascar, the WHO and the World Meteorological Organization (WMO) are working with the government to support the interagency working group on climate change and health, and to develop recommendations that align with and support government-identified priorities and needs. This diagnostic aims to build on this base of technical knowledge and government support to directly link much-needed interventions to financial investment.

PHOTO CREDIT: USAID

CASE STUDY 3: STRENGTHENING MALARIA PREVENTION IN THE HIGHLANDS OF KENYA

PHOTO CREDIT: ERIC ONYIEGO/USAID KENYA

As part of the WHO/United Nations Development Programme (UNDP) program Climate Change Adaptation to Protect Human Health that ran from 2010–2015, the Kenya pilot project provided training on and development of tools to prepare malaria control programs. The tools focused on understanding the influence of climate change and variability on the transmission risks of malaria in specific geographic areas. This included: 1) improving use of weather forecasting to better predict malaria epidemics; 2) strengthening the capacity of health sector stakeholders (such as district malaria prevention managers) to develop and interpret long-term malaria prediction charts, and to develop appropriate response measures to prevent a malaria epidemic; and 3) implementing community-level malaria epidemic prevention measures.

CASE STUDY 4: STRENGTHENING LOCAL FOOD SYSTEMS: A HOSPITAL'S ROLE

PHOTO CREDIT: DANIEL E BRADLEY

Boston Medical Center is one of the growing number of hospitals growing their own produce. In the United States, the prevalence of hospitals with farms or gardens has doubled since 2008, from 13 percent to 26 percent in 2016. These medical facilities set up actual farms on their grounds, hiring farm managers to oversee the crops and inviting the community to help with harvesting. Vegetables from the farm are sent to the hospital's preventive food pantry, where low-income patients can pick up food items that meet their nutritional needs. Others go to a demonstration kitchen in the cafeteria, where registered dietitians and nurses teach patients how to prepare tasty and healthy meals. Not only do these farms increase local and organic food supply and nutrition outcomes (increasing the adaptive capacity of local residents), but they also help to mitigate GHG emissions by keeping food production and distribution local.

CASE STUDY 5: USING SOLAR ENERGY TO POWER HOSPITALS IN RWANDA

PHOTO CREDIT: IIED

Operating health care facilities in Rwanda is a challenge, as only 5 percent of the country is connected to the national power grid. Partners in Health (PIH), an organization providing health care in poor communities around the world, faced the choice of using diesel power to run its five clinics in eastern Rwanda or using an alternative energy option. Since diesel fuel is expensive, polluting, and unreliable, PIH turned to the Solar Energy Lighting Fund (SELF) for assistance in setting up solar diesel hybrid systems. The sun now provides 90 percent of the five clinics' energy, with diesel as a backup in case of heavy use or extended periods of rain.

CASE STUDY 6: STRENGTHENING COLD CHAINS WITH SOLAR REFRIGERATION

PHOTO CREDIT: WORLD BANK

Solar-powered refrigerators are an example of a cost-effective technology that can simultaneously reduce health sector emissions, reduce the need for grid extension, and strengthen health systems for improved delivery of immunizations programs. Such technology is especially critical in remote areas where unreliable electricity challenges the continuity of a vaccine cold chain. Solar refrigeration was a promising development in the early 1980s, but initial technology relied on expensive battery systems with short lives of about three to five years. Developed in recent years, a new technology called "solar direct-drive" (SDD) eliminates the need for batteries, thus improving the quality and range of existing cold chains for safe blood and vaccine storage. SDD technology uses solar energy to directly freeze water or other cold storage material and then uses the energy stored in the frozen bank to keep the refrigerator cold during the night and on cloudy days. Appliances include refrigerators, water-pack freezers, and combined refrigerator–water-pack freezers, which are wired directly to a photovoltaic generator. Relative to refrigeration fueled by kerosene or liquid petroleum gas, SDD refrigeration has the lowest total cost of ownership in areas with unreliable electricity and adequate sun exposure (WHO/UNICEF 2017). For a full list of all WHO-prequalified solar-powered vaccine refrigerators and freezers, including their freeze-protection grading, refer to the PQS Catalogue.

The Clinton Health Access Initiative launched SDD pilot programs in Ethiopia, Nigeria, Kenya, Malawi, Tanzania, Uganda, Cameroon, Mozambique, and Lesotho. Hospitals, health centers, and medical dispensaries in the remote parts of each country are equipped with SDD refrigerators to assist in national immunization programs. In Uganda, it was discovered that the benefits of using SDD refrigerators at off-grid facilities rather than absorption equipment (i.e., refrigeration fueled by kerosene or liquid petroleum gas) could potentially save $3.45 million in energy costs over five years (Ashok, Brison, and LeTallec 2017).

CASE STUDY 7: USING WEATHER AND CLIMATE INFORMATION TO IMPROVE HEALTH SECTOR RESILIENCE

PHOTO CREDIT: USAID MOZAMBIQUE

In Mozambique, where climatic conditions including increased temperatures and rainfall variability have the potential to exacerbate health risks, the USAID/Adaptation Thought Leadership and Assessments (ATLAS) project, alongside Mozambique's National Institute of Health (INS), developed a scientific knowledge base to guide scientifically informed investments and adaptation measures necessary to increase climate resilience of the health sector in Mozambique and to support the development of Mozambique's National Climate and Health Observatory. The study examined climate effects on diarrheal disease and malaria in Mozambique and pointed to several specific actions to support the Mozambican health sector. Reducing health risks will require modifying current policies and programs and implementing new ones to explicitly consider climate variability and climate change. ATLAS recommended that adaptation actions should focus on building more resilient health systems, reducing overall vulnerability, and developing specific system capacities by investing in several entry points, including: 1) information systems, 2) leadership and governance foundations, and 3) risk management.

Section 4: Guide to Available Funds

IN THIS SECTION

This section summarizes the most relevant and feasible funds for accessing financing for projects in the climate–health nexus. Table 4 provides basic information on 10 climate funds and 5 health funds that are accessible by national governments. The table is followed by a more detailed overview of each fund, including eligibility requirements. For additional funding sources not included in this table due to eligibility requirements (i.e., they are not accessible by national governments), see Annex A.

TABLE 4. SUMMARY OF CLIMATE CHANGE AND HEALTH FUNDS

Climate Change Funds	Objective	Mode of Support	Description
The Green Climate Fund (GCF)	Mitigation and adaptation	Grants, concessional loans, capital contribution	The GCF aims to promote climate-resilient development by providing support to developing countries to prevent emissions and pollution, and to adapt to the impacts of climate change. At $10.3 billion, the GCF is the largest climate change fund; it anticipates disbursing $900 million in 2018.
The Adaptation Fund (AF)	Adaptation	Grants	The AF was established to finance concrete adaptation projects and programs in developing countries that are party to the Kyoto Protocol and are particularly vulnerable to the adverse effects of climate change. As of 2018, the fund had $426 million committed to projects.
The Least Developed Countries Fund (LDCF)	Adaptation	Grants	The LDCF was established to support LDCs to prepare and implement NAPAs and NAPs. By 2017, the LDCF had approved around $1.2 billion for the funding of projects and programs in 51 countries.
Africa Climate Change Fund (ACCF)	Mitigation and adaptation	Grants	The ACCF supports regional member countries' transition to more climate-resilient, low-carbon development. It also helps countries access greater amounts of climate finance and use of funds received more efficiently and effectively. Total contributions to the ACCF since its inception in 2014 amount to about $13.8 million.
Climate Technology Centre and Network (CTCN)	Mitigation and adaptation	Technical assistance	The CTCN promotes the accelerated transfer of environmentally sound technologies for low-carbon and climate-resilient development.

Global Climate Change Alliance (GCCA+)	Mitigation and adaptation	Grants and technical assistance	GCCA+ supports developing countries to adapt to and mitigate climate change in support of achievement of the Sustainable Development Goals, and to have their voice better heard in international climate change negotiations.
International Climate Initiative (IKI)	Adaptation, mitigation, biodiversity conservation, and REDD+	Grants	The IKI finances climate projects in developing and newly industrialized countries, as well as countries in transition economies, and provides assistance mainly through technology cooperation, policy advice, and capacity development.
Nordic Development Fund (NDF)/ Nordic Climate Facility (NCF)	Climate change (mitigation and adaptation) and poverty reduction	Grants	The NDF is the joint development finance institution of Denmark, Finland, Iceland, Norway, and Sweden. It provides cofinancing for climate change and development activities in low-income countries, with a particular emphasis on sub-Saharan Africa. The NCF is one of the instruments financed by the NDF.
Health Funds	**Objective**	**Mode of Support**	**Description**
The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM)	Malaria, TB, and AIDS	Grants	The Global Fund provides grants to support projects concerned with AIDS, TB, and malaria. The fund raises and invests $4 billion per year.
The OPEC Fund for International Development (OFID)	Health, energy, and poverty, among others	Loans and grants	OFID is the development finance institution established by the Member States of OPEC in 1976 as a channel for aid to developing countries. It provides financing to build essential infrastructure, strengthen social services delivery, and promote productivity, competitiveness, and trade. OFID's work is people-centric, focusing on projects that meet basic needs – such as food, energy, clean water and sanitation, health care, and education.
The European & Developing Countries Clinical Trials Partnership (EDCTP)	Clinical research	Grants	The EDCTP funds clinical research to accelerate the development of new or improved drugs, vaccines, microbicides, and diagnostics against HIV/AIDS, TB, and malaria as well as other poverty-related infectious diseases in sub-Saharan Africa, with a focus on phase II and III clinical trials. In 2017 the fund disbursed $190 million in grants.
Unitaid	HIV/AIDS, TB and malaria	Grants	Unitaid is an international organization that invests in new ways to prevent, diagnose, and treat HIV/AIDS, TB, and malaria more quickly, more cheaply, and more effectively. It also works to improve access to diagnostics and treatment for HIV co-infections, including hepatitis C. Unitaid is a hosted partnership of the World Health Organization (WHO). Since its establishment in 2006, Unitaid has received over $2.5 billion in contributions from donors.
Children's Investment Fund Foundation (CIFF)	Adolescent nutrition and health; climate change (mitigation)	Grants	CIFF is an independent philanthropic organization headquartered in London, with offices in Nairobi and New Delhi. It works with a range of partners seeking to transform the lives of vulnerable children and adolescents in developing countries. Current grant commitments total $828.5 million.

The Green Climate Fund (GCF)

FOCUS
Mitigation, Adaptation

ELIGIBILITY
All developing countries that are party to the UNFCCC

METHOD OF SUPPORT
Grants, concessional loans, subordinated debt, equity, and guarantees

HOW TO ACCESS
For proposals under $10 million and with minimal social and environmental risks, the GCF has a new Simplified Approval Process

FUND WEBSITE
www.greenclimate.fund

GOOD TO KNOW

The GCF is staged to become the main multilateral financing mechanism to support climate action in developing countries. The GCF fast-tracks entities already accredited to the AF, and the AF Board recently agreed to fast-track reaccreditation of entities that are accredited to the GCF.

POTENTIAL FUNDING OPPORTUNITY

- Development and implementation of NAPs and HNAPs.
- Preventive and adaptive actions, such as setting up extreme weather early warning systems and improving water infrastructure, which can reduce the severity of climate impacts on health.
- Carbon measurement and reduction within the health sector.
- Renewable energy systems for the health sector.
- Green building/net-zero health care facilities.
- Training and regulatory/framework reforms.

ABOUT

The GCF is a direct-access, multilateral fund established in 2010 within the framework of the UNFCCC to support the shift to low-emission and climate-resilient development by investing in adaptation and mitigation projects in the developing world. The Fund became fully operational in 2015 and has set a goal of mobilizing $100 billion per year by 2020 from public, private, and philanthropic sources, including cities. The GCF is the world's largest fund dedicated to fighting climate change. The initial resource mobilization period lasts from 2015–2018 and the Fund accepts pledges on an ongoing basis. Once 60 percent of contributions have been approved toward projects and programs, the GCF will rely on a systematic process to replenish resources.

FOCUS AREAS

The GFC aims for a 50:50 balance between mitigation and adaptation investments; 50 percent of the adaptation allocation is aimed at LDCs, Small Island Developing States (SIDs), and African States.

The **focus areas for mitigation** include: low-emission transport, low-emission energy access, and power generation at all scales; reduced emissions from buildings, cities, industries, and appliances; and sustainable land and forest management (including REDD+ implementation) for mitigation.

The **focus areas for adaptation** include: increased resilience of health, food, and water systems; infrastructure; ecosystems; and enhanced livelihoods of vulnerable people.

HOW TO ACCESS THE FUND

The GCF publishes a call for proposals on the Fund's website and also accepts concept notes and funding proposals on a rolling basis. To access funding, public and private entities may submit funding proposals through GCF's Accredited Entities (AE), or go through a six-month accreditation process. Organizations already accredited by the GEF, the AF, and Directorate-General for International Cooperation and Development (DG DEVCO) are eligible for a three-month, fast-track accreditation. After accreditation, an AE can submit concept notes and project and program proposals for funding in close consultation with National Designated Authorities (NDAs). The NDA acts as the main point of contact between a country and the Fund and seeks to ensure activities align with strategic national objectives and priorities, while AEs oversee, supervise, manage, and monitor their GCF-approved projects and programs. To be considered for funding, a proposal must be accompanied by a formal letter of no-objection to the Secretariat from the NDA.

APPROVAL PROCESS

As a voluntary but recommended step, AEs may submit a concept note to present a summary of a proposed project/program. In consultation with the NDA, the Secretariat provides feedback and recommendations to the AE and clarifies if the concept is endorsed, not endorsed with possibility of resubmission, or rejected. Full proposals submitted to the Secretariat are evaluated against the GCF's investment criteria: impact potential, paradigm shift potential, sustainable development potential, responsible to recipients' needs, country ownership, efficiency, and effectiveness.

Once the proposal passes the initial review stage, the proposal is reviewed by the Fund's Independent Technical Advisory Panel (ITAP). At this point the proposal may require additional clarification from the AE. After the ITAP assessment and the Secretariat's review, the proposal is submitted to the GFC Board for consideration no later than three months before the Board meeting where the funding proposal will be considered. The Board makes one of the following decisions through consensus: approve funding, approve funding with the conditions and recommendations made to the funding proposal, or reject the funding proposal. Following the approval of funding, a Funded Activity Agreement (FAA) between the AE and GCF is negotiated and signed.

KEY RESOURCES

Green Climate Fund Proposal Toolkit; Accredited Entity Directory

PROJECT PORTFOLIO

Browse projects and programs here

FUNDS

In 2017 $131 million in disbursements were made, with $900 million estimated for 2018. For current balance and information on disbursements, explore the fund dashboard

TIP

Currently, the majority of GCF funding goes toward physical infrastructure improvements, but the GCF highly favors initiatives with monitoring, regulatory, or other components that help people on the ground better prevent and respond to problems, including disease outbreaks.

The Adaptation Fund (AF)

FOCUS
Projects/programs aligned with national priorities with tangible results

ELIGIBILITY
All developing countries (LDCs and SIDs) that are a party to the Kyoto Protocol

METHOD OF SUPPORT
Grants

HOW TO ACCESS
Applications must go through an accredited entity

FUND WEBSITE
www.adaptation-fund.org

POTENTIAL FUNDING OPPORTUNITY

No projects to date focus specifically on climate and health adaptation, however cross-cutting programming that integrates health with disaster risk reduction and early warning systems for food security or disease surveillance remains a priority target.

ABOUT

The AF is a multilateral fund established in 2001 under the Kyoto Protocol of the UNFCCC. Officially launched in 2007, the AF finances concrete adaptation projects and programs in developing countries through direct access. The Fund is financed in part by government and private donors, as well as a 2 percent share of the proceeds of Certified Emission Reductions (CER), the tradable emission credits issued under the Protocol's Clean Development Mechanism (CDM). The World Bank acts as the trustee for the AF and the Global Environment Facility (GEF) provides secretariat services on an interim basis.

FOCUS AREAS

No prescribed sectors or approaches are in place, but projects/programs must align with national priorities and have visible and tangible results on the ground aimed at addressing the adverse impacts of and risks posed by climate change. To date, the AF has supported adaptation in the following sectors: food and water security, coastal management, agriculture, disaster risk reduction, rural development, and forests.

HOW TO ACCESS THE FUND

Organizations seeking financial resources must apply to be an AE with the AF or submit proposals directly through a national, regional, or multilateral implementing entity accredited by the AF. Once an organization has received accreditation, it can submit project proposals for approval by the AF Board. A proposal must follow a specified template, be written in English, and be submitted at least nine weeks prior to the Fund's Board meeting, which occurs three times per year.

GOOD TO KNOW

Up to one-half of the AF's total resources can be accessed by multilateral implementing entities, while the other half is reserved for direct access by national implementing entities (NIEs).

The Fund's main revenue source is Certified Emission Reductions (CER) sales but the collapse of the carbon markets since the 2008 financial crisis means new resources are needed.

APPROVAL PROCESS

Regular adaptation project and program proposals undergo either a one-step or a two-step approval process. A small project, i.e., one requiring a contribution from the AF of less than $1 million, requires a one-step approval process where the implementing entity directly submits a fully developed project proposal to the AF Board for approval. For projects larger than $1 million, a two-step process is necessary; the implementing entity must first submit a brief project concept, which is either endorsed, not endorsed, or rejected by the Board. If endorsed, the implementing entity submits a fully developed project or program document to be similarly approved, not approved, or rejected by the Board.

KEY RESOURCES

Read more about the application process

PROJECT PORTFOLIO

Browse projects and programs here

FUNDS

Total contributions:
$614.84 million

Fund balance:
$352.10 million
(as of 10/12/2017)

Average project grant:
$6.5 million
$10 million cap per country

TIP

Several small grants are available under the Climate Finance Readiness Programme to help NIEs provide peer support to countries seeking accreditation with the Fund and to build capacity for undertaking various climate finance readiness activities.

The Least Developed Countries Fund (LDCF)

FOCUS
NAPA priority sectors

ELIGIBILITY
48 LDCs, of which 34 are in Africa: Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Togo, Tanzania, Uganda, and Zambia.

METHOD OF SUPPORT
Grants

HOW TO ACCESS
Proposal applications must go through one of the GEF's 18 implementing agencies

FUND WEBSITE
www.thegef.org/topics/least-developed-countries-fund-ldcf

POTENTIAL FUNDING OPPORTUNITY

Revise, develop, and/or implement the NAP for building health resilience to climate change.

ABOUT

The LDCF is a multilateral fund established in 2001 under the UNFCCC and operationalized in 2002. It aims to address the special needs of the world's 49 LDCs as they adapt to the effects of climate change; its priority is supporting the preparation and implementation of NAPAs. Developed country parties and other parties in a position to do so voluntarily contribute to the fund, which is administered by the GEF with the World Bank as the trustee.

FOCUS AREAS

Any sector identified as a priority area under the NAPA is relevant for the LDCF. The main sectors that have been funded include: agriculture (29 percent), natural resource management (17 percent), water resource management (14 percent), coastal zone management (13 percent), climate information services (12 percent), disaster risk management (9 percent), infrastructure (5 percent), health (5 percent), and cross-cutting programs (1 percent).

HOW TO ACCESS THE FUND

The LDCF accepts applications on a rolling basis for projects that prepare and implement NAPAs. Project proponents must secure the endorsement of the national GEF Operational Focal Point prior to requesting assistance. Proposal applications are accepted by the GEF Secretariat through one of its 18 implementing agencies.

APPROVAL PROCESS

Projects over $2 million are referred to as Full-sized Projects (FSPs); those $2 million or less are referred to as Medium-sized Projects (MSPs). MSPs follow a more streamlined project cycle compared to FSPs. For FSPs, submission to the GEF under the LDCF starts with a Project Identification Form (PIF), followed by a CEO Endorsement Form. MSPs may start with the CEO Endorsement Form. Once the GEF CEO endorses the project, the funding is released to the implementing agency.

$ *FUNDS*

Total contributions:
$1,221.52 million

Fund balance:
$646.66 million
(as of 10/14/2017)

Ceiling per LDC:
$20 million

Africa receives 56 percent of the approved LDCF funding

GOOD TO KNOW

A country must have a NAPA submitted to the UNFCCC before it can access funding for an adaptation project.

Africa Climate Change Fund (ACCF)

FOCUS
Mitigation, Adaptation

ELIGIBILITY
Grant recipients may include African governments, nongovernmental organizations (NGOs), research institutions, and regional institutions (jointly referred to as external recipients)

METHOD OF SUPPORT
Grants

HOW TO ACCESS
Funding opportunities are available through a public call for proposals

FUND WEBSITE
www.afdb.org/en/topics-and-sectors/initiatives-partnerships/africa-climate-change-fund/

GOOD TO KNOW

Initially established for just three years, the fund may be terminated, renewed, or converted by common agreement between donors and the African Development Bank (AfDB).

POTENTIAL FUNDING OPPORTUNITY

» Capacity building in climate change and green growth for African countries and stakeholders at national and regional levels.

» Leveraging of funds to access larger amounts of climate finance and more effective use of funds provided.

ABOUT

The ACCF is a bilateral, multi-donor trust fund created by the African Development Bank (AfDB) in April 2014 to support regional member countries' transition to more climate-resilient, low-carbon development, and to help countries access greater amounts of climate finance and use funds more efficiently and effectively. To date, the ACCF has approved eight small grant projects totaling $3.3 million. The approved projects are supporting six countries (Mali, Kenya, Swaziland, Cabo Verde, Zanzibar (Tanzania), and Côte d'Ivoire) to strengthen their capacities to access international climate finance; two multinational projects were also approved.

FOCUS AREAS

The scope of the ACCF is sufficiently wide to permit a broad range of activities, including: preparation for accessing climate funding; integration of climate change and green growth into strategic documents and/or projects; preparation and funding of adaptation and mitigation projects; climate change-related knowledge management and information sharing; capacity building; preparation of climate change-resilient and low-carbon strategies and policies; green growth analysis work; and advocacy and awareness-raising.

HOW TO ACCESS THE FUND

Funding opportunities are available through a public call for proposals. Calls for proposals were held in 2014 and 2017, both with a one-month application window. Eligible beneficiaries must submit a concept note following a template.

APPROVAL PROCESS

Applicants submit a concept note in response to a public call for proposals. The ACCF conducts an initial screening of all concept notes received by the deadline against established criteria. Shortlisted proponents are invited to present a full project proposal and are given approximately one month to prepare a full proposal. Proposals are reviewed by two AfDB experts.

EXAMPLES OF PAST PROJECTS

No specific health projects have been implemented to date. Other project examples include:

- Enhancing Access to Climate Information in Africa: Climate Change Profiles
- Enhancing Capacity to Mainstream Climate Resilience in Zanzibar
- Advancing Kenya's Green Growth Agenda

KEY RESOURCES

Overview of Fund; Frequently Asked Questions

FUNDS

Grants range from $250,000 to $1 million, with a funding envelope of $5 million

GOOD TO KNOW

Goal is to triple climate financing to reach $5 billion per year by 2020

Climate Technology Centre and Network (CTCN)

FOCUS
Climate technologies

ELIGIBILITY
Requests submitted by LDCs and other highly vulnerable and low-capacity countries are prioritized. The request for technical assistance must:

- Have a clear and positive benefit in mitigating or adapting to climate change.
- Align with national plans and strategies.
- Strengthen national capacities.
- Describe processes in place in the country to monitor and evaluate any support provided.

METHOD OF SUPPORT
Technical assistance and grants

HOW TO ACCESS
Academic, government, NGO, and/or private sector representatives work with their National Designated Entity (NDE) to identify the type of technical assistance needed to implement their technology-related climate plans

FUND WEBSITE
www.ctc-n.org

POTENTIAL FUNDING OPPORTUNITY

Technical assessments, identification of detailed interventions, comprehensive costing of adaptation interventions, recommendations for policy and standards, and other recommendations for a project to best achieve its climate-resilience goals.

ABOUT

The United Nations' CTCN is the operational arm of the UNFCCC technology mechanism and is hosted by the United Nations Industrial Development Organization (UNIDO) and UNEP. The CTCN provides tailored advice and assistance for deploying climate-friendly technologies at the request of developing countries, through a global network of partners. CTCN technical assistance aims to create opportunities and remove barriers for financial investment from the UNFCCC Finance Mechanism institutions, development banks, and/or the private sector.

FOCUS AREAS

The CTCN delivers five main types of technical support on climate technologies to countries seeking help in sectors such as energy, forestry, agriculture, water, industry, human health, and waste management:

- Technical assessments, including technical expertise and recommendations related to specific technology needs, identification of technologies, technology barriers, technology efficiency, as well as piloting and deployment of technologies.
- Technical support for policy and planning documents, including strategies and policies, roadmaps and action plans, regulations, and legal measures.
- Trainings.
- Tools and methodologies.
- Implementation plans.

HOW TO ACCESS THE FUND

Academic, government, NGO, and/or private sector representatives work with their National Designated Entity (NDE) to identify the type of technical assistance needed to implement their technology-related climate plans. The NDE conveys the request to the CTCN by submitting a technical assistance form. Upon receipt of a request, the CTCN quickly mobilizes its global network of climate technology experts to collaborate with the NDE to provide a solution tailored to the needs of the individual country. Response plans are generally delivered within 12 months. Technical assistance is provided:

- Free of charge (up to a value of $250,000).
- At local, national, or regional level.
- For a broad range of adaptation and mitigation technologies
- At all stages of the technology cycle: from identification of climate technology needs, policy assessment, selection and piloting of technological solutions, to assistance that supports technology customization and widespread deployment.

APPROVAL PROCESS

The CTCN aims to achieve a balanced and equitable portfolio between adaptation and mitigation. Once a request is submitted by the NDE, it is logged and passes initial screening by the core Centre staff. The request may be refined by the NDE and CTCN expert team before final review and approval of the CTCN Director.

EXAMPLES OF PAST PROJECTS

- Congo: Feasibility Study on Health and Environmental Risk Monitoring
- Gambia: Improving Capacity for Recycling of Waste & Organic Materials
- Uganda: Strategy for a National Pay-As-You-Go Policy and Mechanisms to Enhance Rural Off-Grid Solar Energy Access and Clean Cookstoves
- Antigua and Barbuda: Resilience to Climate Variability in the Building Sector

KEY RESOURCES

NDE List and Profiles; Technical Assistance Request Form

FUNDS

The CTCN provides technical assistance rather than direct funding to countries. However, in some cases the CTCN can help to play a matchmaking role with funding sources

GOOD TO KNOW

At this time, the number of requests that each country may submit is unlimited. Requests are free of charge (up to a value of $250,000).

Global Climate Change Alliance (GCCA+)

FOCUS
Five priority areas; see below

ELIGIBILITY
To be eligible for GCCA+ financial support, a country has to be among the 73 LDCs or SIDs that are already recipients of funds. Training and technical assistance services related to climate change are also available for government agencies of ACP (African, Caribbean and Pacific Group of States) countries, through the GCCA+'s Intra-ACP Programme.

METHOD OF SUPPORT
Technical assistance and grants

HOW TO ACCESS
Governments, regional organizations, NGOs, and other stakeholders can express interest in receiving support from the GCCA+ to the EU delegation in the concerned country

FUND WEBSITE
www.gcca.eu and www.climatefundsupdate.org/global-climate-change-alliance

POTENTIAL FUNDING OPPORTUNITY

Opportunity exists to apply for technical assistance and/or training in the climate–health nexus, particularly for activities that link to existing initiatives that contribute to GCCA+ priority areas, like mainstreaming climate change into poverty reduction strategies. Examples include feasibility studies; project identification or formulation; climate funding requirements and access to funds; capacity building, trainings, and workshops; curriculum development; policy development; and other activities related to climate change.

ABOUT

The GCCA+ was established by the European Union (EU) in 2007 to strengthen dialogue and cooperation with developing countries, in particular LDCs and SIDs. It started its work in just four pilot countries. Today it has a budget of more than €300 million and supports 51 programs in 38 countries. In 2014, a new phase of the GCCA+, the GCCA+ flagship initiative, began in line with the European Commission's (EC) new Multiannual Financial Framework (2014–2020). The GCCA+ partners with national and local governments, regional organizations, NGOs, academic and scientific institutions, plus local representations of international organizations and multilateral/bilateral development agencies to pool resources, expertise, and knowledge to find the best solutions for tackling the causes and impacts of climate change.

FOCUS AREAS

The GCCA+ priority areas include:

- Mainstreaming climate change into poverty reduction and development strategies.
- Adaptation, building on NAPAs and other national plans.
- Disaster risk reduction (DRR).
- Reducing emissions from deforestation and forest degradation (REDD).
- Enhancing participation in the global carbon market and the Kyoto Protocol's Clean Development Mechanism (CDM).

HOW TO ACCESS THE FUND

The GCCA+ follows a demand-driven approach. Governments, regional organizations, NGOs, and other stakeholders can express interest in receiving support from the GCCA+ to the EU delegation in the concerned country. If any regional organization is interested in supporting implementation of a GCCA+-funded regional program, it is invited to express interest to its EU delegation. Training and technical assistance services related to climate change are also available for government agencies of ACP countries through the GCCA+'s Intra-ACP Programme. Interested applicants can obtain additional information and an application form at the following email: GCCA Intra-ACP@acp.int. More details on how to participate can be found here.

APPROVAL PROCESS

The EU delegation, in collaboration with EC headquarters, examines the possibility of funding an initiative. All expressions of interest are reviewed and ranked in line with 1) the initiative's selection criteria, 2) the GCCA+ proposal preparation checklist, and 3) the GCCA+ index, a climate-resilient development index developed in line with the Sustainable Development Goals.

EXAMPLES OF PAST PROJECTS

To date, no GCCA/GCCA+ programs have focused primarily on health, however health is listed in a broad sector of "water and sanitation, waste, infrastructure, tourism and health," which received 14 percent of the GCCA+'s support from 2008–2014. Health programming has been limited to spillover benefits, primarily from projects in coastal zone management and water and sanitation.

PROJECT PORTFOLIO

Explore GCCA+'s areas of technical and financial support

FUNDS

Information on current funding levels is unavailable;

51 percent of GCCA+ financing goes to African countries.

GOOD TO KNOW

In 2014 the GCCA+ shifted from being predominantly a financial support mechanism to being predominantly a technical support mechanism, leveraging the European Commission's (EC) established channels for political dialogue and cooperation at the national and international level.

International Climate Initiative (IKI)

FOCUS
Low carbon-development, adaptation, Carbon sinks/ REDD+, biodiversity

ELIGIBILITY
Broad eligibility, including developing, newly industrializing, and transition countries in Africa, South and Southeast Asia, Small Island States in the Pacific and the Caribbean, and others

METHOD OF SUPPORT
Grants and concessional loans

HOW TO ACCESS
Call for proposals

FUND WEBSITE
www.international-climate-initiative.com

POTENTIAL FUNDING OPPORTUNITY

Opportunity for cross-sectoral adaptation and development of national health adaptation plans.

ABOUT

The International Climate Initiative (IKI) is a funding instrument under Germany's Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMU). The IKI finances projects that promote climate-friendly economies, support measures for climate change adaptation, and reduce emissions from deforestation and forest degradation (REDD+). As a key element of Germany's contribution to climate finance, the IKI provides assistance mainly through technology cooperation, policy advice, and capacity development. The proposed life of the IKI was initially 2008–2011. However, the IKI was extended beyond 2011 and continues to receive funding of €120 million per year.

FOCUS AREAS

- Low-carbon development
- Adaptation
- Carbon sinks/REDD+
- Biodiversity

HOW TO ACCESS THE FUND

The IKI selects projects for funding through a call for proposals. In the context of this funding information, the IKI is looking primarily for national or regional proposals that, as joint programs, implement overall programmatic approaches with a volume of generally €15–20 million. These joint programs should have a regional focus and be strongly anchored in the partner countries. If there is a major need for support for individual countries that are not IKI priority, countries can in exceptional cases also be recipients of funding. Project proposals can be submitted by Germany's federal implementing agencies, NGOs, business enterprises, universities, and research institutes, as well as by international and multinational organizations, such as development banks and United Nations bodies and programs.

APPROVAL PROCESS

The IKI Programme Office makes funding decisions based on a two-stage process: 1) an appraisal of project outlines; and 2) a review of full proposals. Applicants must submit project outlines by the deadline, using templates available on the IKI website. Shortlisted projects must submit a formal funding application for another round of evaluation. Projects are selected based on a variety of criteria, including the needs of partner countries, fund availability, internal foreign and development policy criteria, and any existing multilateral and bilateral cooperation with the German government.

Other key selection criteria for funding approval include assessing the aptitude of project partners – in terms of competence, capacity, and experience – and determining the suitability of the project – in relation to transformative impacts, sustainability of outcomes, and self-financing and/ or third-party financing opportunities.

EXAMPLES OF PAST PROJECTS

A Global Early Warning System for Climate Change - A Case Study for Designing the System

KEY RESOURCES

Application Guidelines; Frequently Asked Questions

PROJECT PORTFOLIO

Explore projects here

FUNDS

$139.5 million per year

GOOD TO KNOW

Member States to the Central African Forest Commission (Burundi, Cameroon, Chad, Central African Republic, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Republic of the Congo, Rwanda, and São Tomé and Príncipe) and South Africa are priority countries for 2018.

Nordic Development Fund (NDF)/Nordic Climate Facility(NCF)

FOCUS
Mitigation, Adaptation

ELIGIBILITY
All projects should be implemented through partnerships between Nordic and local organizations in an eligible NCF country. Eligible NCF countries in Africa include: Benin, Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Rwanda, Senegal, Tanzania, Uganda, and Zambia

NCF financing is granted only to an organization, company, or authority with relevant technical capacity that is registered in Denmark, Finland, Iceland, Norway, or Sweden, and that has passed the prequalification for eligibility.

METHOD OF SUPPORT
Grants

HOW TO ACCESS
Annual call for proposals

FUND WEBSITE
www.ndf.fi and www.ndf.fi/project/nordic-climate-facility-ncf

POTENTIAL FUNDING OPPORTUNITY

» Health adaptation
» Health mitigation
» Capacity building/training/conference

ABOUT

NDF is a multilateral development finance institution established in 1989 by the five Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden). From 1989 to 2005, NDF provided concessional loans for social and economic development. In 2009, the NDF member countries decided that the Fund should provide mainly grant financing for climate change investments in low-income countries. The Nordic Climate Facility (NCF) is one of the instruments financed and administered by NDF. NCF aims at building partnerships between the Nordic countries and NCF's partner countries on climate change adaptation and mitigation.

FOCUS AREAS

- NDF supports a wide range of adaptation and mitigation activities across sectors and areas susceptible to climate change, such as: energy, transport, water and sanitation, health, agriculture, forestry, and other areas related to natural resource management.
- Financing may also cover climate change impact analysis and national adaptation planning, as well as "climate proofing" of sectors, geographic areas, and specific projects.
- NDF's climate change project portfolio include both adaptation and mitigation.

HOW TO ACCESS THE FUND

NCF selects projects for funding through an annual call for proposals. NCF reviews submitted proposals and invites shortlisted organizations to elaborate a full proposal. Proposals must include one or more eligible partnerships between Nordic and local

organizations in an eligible NCF country. The project partners must mobilize cofinancing equal to at least 25 percent of the requested NCF grant. NCF can provide financing of €250,000–500,000.

APPROVAL PROCESS

Project proposals are prescreened through an online form, followed by a full technical and financial review. Funding decisions are results-based, with grant disbursements linking to agreed milestones set out in the proposals. NCF's grant funding may cover up to 80 percent of the estimated costs, with the rest covered by the applicant, partners, and/or other financiers. Proposals with more co-financing usually score higher. The maximum project implementation period is 30 months, starting one month after the grant agreement is signed.

EXAMPLES OF PAST PROJECTS

- Climate Change and Health
- Solar Energy Packages for Health Centers in Uganda
- Weather and Gender: Empowering Women to Combat Climate Change
- International Climate Change and Health Seminar

KEY RESOURCES

Guidelines for Project Identification and Screening; NDF Climate Change Portfolio; Frequently Asked Questions

PROJECT PORTFOLIO

Browse NDF's Africa projects here; a list of all awarded NCF projects can be found here

FUNDS

Grant amounts vary depending on project scope, ranging from €2–5 million.

In November 2016 NDF's Board committed €20 million for three more calls for proposals through NCF during the period 2017–2019

GOOD TO KNOW

NDF is one of the only funds to focus on the climate–health nexus, although this focus is relatively new. Together with the World Bank and WHO, NDF cohosted a climate change and health seminar in May 2016 in Helsinki. The theme "Early experiences in multisectoral climate change and health work for international development: opportunities and finance" brought together health experts and development financiers.

The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM)

FOCUS
Prevention, treatment, building resilient and sustainable health systems

ELIGIBILITY
Eligibility is based on a country's income level and disease burden. It is possible for a country to be eligible to receive funding for only one or two of the diseases. The 2019 Eligibility List identifies which countries and components (HIV/AIDS, TB, or malaria) may be eligible to receive allocated funding for the 2020-2022 funding cycle.

METHOD OF SUPPORT
Grants

HOW TO ACCESS
Eligible countries request funding during a three-year allocation cycle

FUND WEBSITE
www.theglobalfund.org

POTENTIAL FUNDING OPPORTUNITY

Projects that seek to adapt health systems in East Africa to address upstream drivers of malaria transmission (temperature, rainfall seasonality) to prevent spread of malaria; projects that address the connection between HIV, climate change, and food security.

ABOUT

The GFATM was established in 2002 as an independent and multilateral financing mechanism to raise, manage, and invest money from public and private donors to respond to HIV/AIDS, TB, and malaria in low- and middle-income countries. It is the world's largest financier of HIV/AIDS, TB, and malaria programs, investing nearly $4 billion per year to support performance-based programs. Donor governments account for 95 percent of the financial support – the United States and the Gates Foundation are the largest public and private contributors, respectively. Because the GFATM is a financing mechanism and not an implementing agency, the institution does not maintain country offices and relies on Country Coordinating Mechanisms (CCMs) for national-level governance of its grants and on Principal Recipients for their implementation. As of March 2016, 119 CCMs and 25 Regional Coordinating Mechanisms existed across the GFATM's portfolio of 124 countries.

FOCUS AREAS

Programming for the prevention and treatment of HIV/AIDS (50 percent), TB (18 percent), and malaria (32 percent); investments for building resilient and sustainable systems for health.

HOW TO ACCESS THE FUND

Eligible countries can request funding at any time during the three-year allocation cycle (the current one is from 2017 to 2019). Funding requests, referred to as a "concept note," are developed through a three-month consultative process between the CCM and the GFATM and must align with the country's national strategic plan for the disease. If a country does not yet have a national strategic

plan for a disease, or if the plan is no longer current, it can base its request on an investment case. Applicants can submit their funding requests separately for each program (HIV, TB, malaria) or as a complete package. This can also include investments for building resilient and sustainable systems for health. For countries with high TB and HIV co-infection rates, a joint funding request should be submitted.

There are three types of funding applications: 1) program continuations for well-performing programs that do not require significant program change; 2) tailored review for circumstances including challenging operating environments, programs transitioning out of GFATM support, or countries identified for innovative approaches or seeking material program changes; and 3) full review of a program's approach and strategic priorities.

APPROVAL PROCESS

The development of a concept note is an iterative process between the CCM and the GFATM and allows for feedback and improvement of the proposed grant program at an early stage. Once a concept note is agreed upon, it is submitted and evaluated by the Technical Review Panel (TRP). If technically sound and strategically focused, the TRP makes a recommendation to the Grants Approval Committee (GAC), which sets the available funding ceiling for the grant(s). The "grant-making" stage follows over the next three months, during which the GFATM works with the CCM and the organization nominated to implement the grant (known as the Principal Recipient) to develop detailed implementation plans for funding requests reviewed and assessed by the TRP and GAC. Once this work is completed, the grant documentation undergoes final review by the GAC. Grants that are considered "disbursement-ready" are recommended to the GFATM Board for approval. Once approved, the grant is signed and the first annual funding decision is processed.

EXAMPLES OF PAST PROJECTS

Since 2007, the GFATM has invested millions of dollars in the procurement of solar panels to power small-scale diagnostic tools and laboratories in Asian and African health clinics.

KEY RESOURCES

The Applicant Handbook; The Global Fund 2017–2019 Funding Cycle; Frequently Asked Questions

FUNDS

Total contribution:
$44,509,231,949

Fund balance:

$5,334.56 million
(as of 04/05/19)

The total amount of funds available for the 2017–2019 allocation period is $11.1 billion, of which $10.3 billion is for country allocations and $800 million is for catalytic investments.

Sub-Saharan Africa received approximately 65 percent of total funds. Africa received 72 percent of total allocated funding for 2017–2019

GOOD TO KNOW

While the GFATM has not prioritized climate change impacts and adaptation needs in past country proposals, it has mentioned that climate change poses a serious challenge to progress made combating malaria. The Fund's 2017–2022 strategy states "efforts to end the three diseases are intimately connected to efforts to eliminate extreme poverty, empower women, enable greater access to education, reduce hunger, combat climate change, and encourage inclusive growth."

The OPEC Fund for International Development (OFID)

POTENTIAL FUNDING OPPORTUNITY

Health sector strengthening.

ABOUT

OFID is the development finance institution established by the Member States of OPEC in 1976 as a channel for aid to developing countries. OFID works in cooperation with developing country partners and the international donor community to stimulate economic growth and alleviate poverty in all disadvantaged regions of the world. It does this by providing financing to build infrastructure, strengthen social services delivery, and promote productivity, competitiveness, and trade.

FOCUS AREAS

OFID's work is people-centric, focusing on projects that meet basic needs – such as food, energy, clean water and sanitation, health care, and education – with the aim of encouraging self-reliance and inspiring hope for the future. Health is one of many focus areas.

ELIGIBILITY

While all developing countries—other than OPEC and OFID Member Countries (MCs)—are eligible for OFID's grant assistance, priority is given to LDCs. OFID also considers regional diversity and strives to maintain a balanced geographic distribution of its grants. In this regard, OFID grants finance national, regional, and multiregional projects.

FUNDS

As of December 31, 2017, OFID's cumulative contribution to the health sector stood at $902 million. Among the many activities funded are infrastructure provision, capacity building, and support to primary health care programs. In the course of 2017, OFID committed $29.3 million for a diverse range of health care initiatives. In 2017, 89 percent of health investments went to Africa. Worldwide, 81 percent of health investments were private sector loans and 9 percent was grant assistance.

FOCUS

Projects that meet basic human needs

METHOD OF SUPPORT

Loans and grants. OFID's grant program includes technical assistance for small-scale social schemes, sponsorship for research, and humanitarian aid

KEY RESOURCES

Information on Grants; Frequently Asked Questions

PROJECT PORTFOLIO

The majority of public sector projects include investments in construction, expansion, or rehabilitation of hospitals and treatment centers. See list of health projects here

HOW TO ACCESS

Review the eligibility requirements and application process here

FUND WEBSITE

www.ofid.org

GOOD TO KNOW

Only a small proportion (2 percent) of health sector financing was through grant assistance in 2016.

European & Developing Countries Clinical Trails Partnership (EDCTP)

FOCUS
Strengthening health system services

ELIGIBILITY
Natural persons and legal entities that are public or private, for-profit, or not-for-profit

METHOD OF SUPPORT
Research and Innovation Actions (RIAs) and Coordination and Support Actions (CSAs)

HOW TO ACCESS
Check here for open calls

FUND WEBSITE
www.edctp.org

GOOD TO KNOW

Although a large focus of this fund is clinical trials, health system strengthening projects have been funded, such as in Tanzania.

POTENTIAL FUNDING OPPORTUNITY

Strengthening health system services, particularly around poverty-related infectious diseases (HIV, TB, malaria, etc.).

ABOUT

The EDCTP funds clinical research to accelerate the development of new or improved drugs, vaccines, microbicides, and diagnostics against HIV/AIDS, TB, and malaria as well as other poverty-related infectious diseases in sub-Saharan Africa, with a focus on phase II and III clinical trials.

METHOD OF SUPPORT

The EDCTP's calls for proposals are supported through two main activities:

- **Research and Innovation Actions (RIAs)** – Actions primarily consisting of clinical research activities and clinical trials in partnership with sub-Saharan Africa countries; these aim to increase the number of new or improved medical interventions for HIV/AIDS, TB, malaria, and other poverty-related infectious diseases, including neglected infectious diseases.
- **Coordination and Support Actions (CSAs)** – Actions primarily consisting of accompanying measures, such as: 1) activities to develop, strengthen, and extend clinical research capacities in sub-Saharan Africa, 2) activities to promote networking and collaboration both between European and African researchers and among African researchers, clinical research institutions, and sites, and 3) activities to foster coordination and cooperation between public and private funders.
- Training and Mobility Awards (TMAs) – Actions primarily consisting of developing clinical research capacities and skills of researchers and clinical research staff from sub-Saharan Africa.

ELIGIBILITY

Natural persons and legal entities that are public or private, for-profit, or not-for-profit (e.g., universities, government departments, research organizations, NGOs, large companies, and small to medium enterprises) regardless of their place of establishment or residence can participate in EDCTP. They must demonstrate that they possess the operational and financial capacity to carry out the proposed tasks.

Calls for proposals based on an RIA require a consortium comprising at least three different legal entities. Two of the legal entities shall be established in two different European Participating States (see EDCTP website) and at least one of the legal entities must be established in a sub-Saharan African country. All three legal entities shall be independent of each other.

For calls for proposals based on a CSA or a Training and Mobility Action (TMA), the requirement is at least one legal entity established in a European Participating State or a sub-Saharan African country, unless otherwise specified in the call for proposals.

KEY RESOURCES
EDCTP Grant Manual

PROJECT PORTFOLIO
Browse EDCTP's project portfolio

FUNDS
The funding rate and level for calls are indicated in the text of the individual call for proposals. The funding rate is 100 percent of direct costs as well as 25 percent overhead to cover indirect costs.

Unitaid

FOCUS
Vector control and malaria prevention

METHOD OF SUPPORT
Unitaid provides health partners with short-term financial grants, targeted to achieve maximum impact

KEY RESOURCES
Information on submitting a proposal

PROJECT PORTFOLIO
Browse Unitaid's project portfolio

HOW TO ACCESS
Check here for open calls

FUND WEBSITE
www.unitaid.eu

GOOD TO KNOW

To date, most projects have been implemented by NGOs and focus on a single disease (malaria, TB, or HIV), rather than health system strengthening overall. See a list of grantees here. Current and past projects indicate funding amounts of generally between $10–100 million, although some exceed $200 million.

POTENTIAL FUNDING OPPORTUNITY

Innovative, scalable approaches in vector control and malaria prevention (Unitaid is currently funding both issues).

ABOUT

Unitaid is an international organization that invests in new ways to prevent, diagnose, and treat HIV/AIDS, TB, and malaria more quickly, more cheaply, and more effectively. It also works to improve access to diagnostics and treatment for HIV co-infections, including hepatitis C. Unitaid is a hosted partnership of the World Health Organization (WHO).

ELIGIBILITY

Unitaid interventions are delivered through implementers; that is, Unitaid does not implement interventions directly and has no in-country presence. For proposals that include country implementation, the organization should demonstrate that it has the capability and capacity to deliver the proposed work in project countries and that the intervention will have a global/regional effect. A consortium approach may be considered for implementation, but projects should be as lean as possible. Any consortium approach should have a strong lead organization with overall responsibility for project implementation.

FUNDS

Unitaid does not specify minimum or maximum grant sizes. Unitaid considers funding size in light of its strategy, available funds, investment required for impact, and existing portfolio of projects. As a general principle, Unitaid aims to fund projects that are targeted and "lean" – that is, scoped at the minimum size required to achieve the desired market impact and public health effects and demonstrate value for money. Current and past projects indicate funding amounts of generally between $10–$100 million, although some exceed $200 million.

Children's Investment Fund Foundation (CIFF)

FOCUS
Health and climate change

METHOD OF SUPPORT
Grants

PROJECT PORTFOLIO
Browse CIFF's grant portfolio

FUND WEBSITE
www.ciff.org

POTENTIAL FUNDING OPPORTUNITY

Decarbonization of health systems, improving air quality, reducing hydrofluorocarbons, and increasing renewable energy production/consumption.

ABOUT

Founded in 2002, CIFF is the world's largest philanthropy that focuses specifically on improving children's lives. Areas of work include maternal and child health, adolescent sexual health, nutrition, education, deworming, tackling child slavery and exploitation, and supporting smart ways to slow down and stop climate change.

ELIGIBILITY

No eligibility requirements are publicly available.

HOW TO ACCESS THE FUND

CIFF identifies opportunities by talking to and meeting individuals and organizations working within priority areas. It normally does not accept unsolicited proposals. More information can be found here.

FUNDS

Current grant commitments total $828.5 million, $168.2 million of which is for climate change funding.

GOOD TO KNOW

A major goal of CIFF is to see a "transition to a zero-carbon society underpinned by a bio-material-based sustainable economy." CIFF currently has $168.2 million invested in its climate change portfolio, primarily in the energy and urban sectors.

ANNEX A: List of foundations

NAME	FOCUS	HOW TO ACCESS
The Gates Foundation	HIV, malaria, TB, diarrheal disease	Grant opportunities
The Children's Investment Fund Foundation (CIFF)	Youth health and well-being; climate change (mitigation)	Process for applying
Rockefeller Foundation	Planetary health; disease surveillance; health systems	What they fund
Unitaid	HIV/AIDS, TB, malaria	Call for proposals
The MacArthur Foundation	Maternal and reproductive health; reducing GHG emissions	Information for grant-seekers
The Clinton Foundation	Climate change (mitigation and adaptation); health systems	Not available
The Packard Foundation	Climate change (mitigation); reproductive health	Information for grant-seekers
William and Flora Hewlett Foundation	Climate change (mitigation)	Information on grants
Grand Challenges Canada	Global health innovations	More information
IZumi Foundation	Health (5 priority areas)	Information on funds and grants

ANNEX B: Glossary of key terms

Climate. The long-term average of the weather in a given place. While the weather can change in minutes or hours, a change in climate is something that develops over longer periods of decades to centuries. Climate is defined not only by average temperature and precipitation but also by the type, frequency, duration, and intensity of weather events such as heat waves, cold spells, storms, floods, and droughts. (EPA 2016)

Climate Change. Refers to any change in climate over time, whether due to natural variability or as a result of human activity. This usage differs from that in the United Nations Framework Convention on Climate Change (UNFCCC), which defines "climate change" as: a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods. (IPCC 2007)

Climate Variability. Variations in the mean climate on all time and space scales beyond that of individual weather events. Natural variations in climate over time are caused by internal processes of the climate system, such as El Niño, as well as changes in external influences, such as volcanic activity and variations in the output of the sun. (IPCC 2007)

Climate Change Adaptation. Adjustment or preparation of natural or human systems to a new or changing environment that moderates harm or exploits beneficial opportunities. (EPA 2016)

Climate Change Mitigation. A human intervention to reduce the human impact on the climate system. This includes strategies to reduce GHG sources and emissions and enhancing GHG sinks. (EPA 2016)

Climate Finance. Refers to local, national, or transnational financing, which may be drawn from public, private, or other sources of financing. Climate finance is critical to addressing climate change because large-scale investments are required to significantly reduce emissions, notably in sectors that emit large quantities of GHGs. Climate finance is equally important for adaptation, for which significant financial resources will be similarly required to allow countries to adapt to the adverse effects and reduce the impacts of climate change. (UNFCCC 2014)

United Nations Framework Convention on Climate Change (UNFCCC). The main international treaty on climate change that sets an overall framework for intergovernmental efforts to tackle the challenges posed by climate change. The Convention entered into force on March 21, 1994 and has near universal membership. The 197 countries that have ratified the Convention are called Parties to the Convention, and have met annually since 1995 in Conferences of the Parties (COP) to assess progress in dealing with climate change. Under the Convention, governments: 1) gather and share information on GHG emissions, national policies, and best practices; 2) launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and 3) cooperate in preparing for adaptation to the impacts of climate change. (UNFCCC 2014)

Annex I Countries. Group of industrialized countries included in Annex I to the UNFCCC that have historically contributed the most to climate change. The group includes all developed countries in the Organisation for Economic Co-operation and Development (OECD), and countries with economies in transition. By default, the other countries are referred to as Non-Annex I countries. (UNFCCC 2014).

Annex II Countries. Group of countries included in Annex II to the UNFCCC, including all OECD countries in the year 1990. Under Article 4.2 (g) of the Convention, these countries are expected to provide financial resources to assist developing countries to comply with their obligations, such as preparing national

reports. Annex II countries are also expected to promote the transfer of environmentally sound technologies to developing countries. (UNFCCC 2014)

National Adaptation Programme of Action (NAPA). A process established by Parties to the UNFCCC in 2001 for LDCs (LDCs) to identify priority activities that respond to their most urgent and immediate adaptation needs. The development of a NAPA also includes short profiles of projects and/or activities and makes LDCs eligible to apply for NAPA project funding under the GEF's Least Developed Countries Fund (LDCF). All LDCs submitted NAPAs to the UNFCCC as of December 2008. (UNFCCC 2014)

National Adaptation Plan (NAP). A process established in 2011 for all Parties to the UNFCCC to establish comprehensive medium- and long-term climate adaptation planning. In 2012, the UNFCCC developed NAP technical guidelines to assist developing countries with adaptation planning. The NAP process seeks to enhance the coherence of adaptation and developing planning within countries and to facilitate country-owned, country-driven action. It is designed so that countries can monitor, review, and update their NAPs in an iterative manner. (UNFCCC 2012)

Nationally Determined Contributions (NDC). The post-2020 domestic mitigation measures a country will pursue, taking into account its domestic circumstances and capabilities. The Paris Agreement requires that each Party to the UNFCCC prepare, communicate, and maintain successive NDCs that it intends to achieve. Parties are expected to prepare and submit new, more ambitious NDCs every five years. (UNFCCC 2017)

Intergovernmental Panel on Climate Change (IPCC). The leading scientific and international body for the assessment of climate change. The IPCC provides the world with an objective, scientific view on climate change and its environmental and socioeconomic impacts. Established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988, the IPCC currently has 195 member countries. The IPCC reviews and assesses the most recent scientific, technical, and socioeconomic information produced worldwide relevant to the understanding of climate change. It does not conduct any research nor does it monitor climate-related data or parameters. (IPCC 2018)

ANNEX C: Climate Change in Context

2016	Paris Agreement entered into force, making it among the fastest major international agreements ever to do so.
2015	Conference of Parties (COP) 21 held in Paris, France. 195 nations agree to combat climate change and unleash action and investment by adopting the Paris Agreement. Developed countries will continue to mobilize $100 billion per year from 2020 to 2025 to support developing countries.
2014	Release of Intergovernmental Panel on Climate Change's (IPCC) Fifth Assessment Report.
2010	COP 16 held in Cancun, Mexico. Parties officially adopt major tenets of the Copenhagen Accord, including limiting global warming to 2°C, and establishing the Green Climate Fund to deliver funds to developing countries for mitigation and adaptation action.
2009	COP 15 held in Copenhagen, Denmark, which produced the Copenhagen Accord. Developed countries pledge up to $30 billion in fast-start finance for 2010–2012.
2007	Release of IPCC's Fourth Assessment Report.
2005	Entry into force of the Kyoto Protocol when Russia voted to ratify the treaty without the participation of the United States.
2001	Release of IPCC's Third Assessment Report. COP 7, held in Marrakech, Morocco, adopts the Marrakesh Accords, which details rules for implementing the Kyoto Protocol and establishing funding instruments (SCCF, LDCF, AF) for adaptation and mitigation.
1997	COP 3, held in Kyoto, Japan, adopts the Kyoto Protocol, the world's first GHG emissions reduction treaty.
1996	The UNFCCC Secretariat is set up to support action under the Convention.
1995	The first Conference of the Parties (COP 1) takes place in Berlin, Germany.
1994	UNFCCC enters into force.
1992	The UNFCCC is opened for signature at the Earth Summit in Rio de Janeiro, Brazil.
1990	IPCC's first assessment report released. IPCC and second World Climate Conference (WCC) call for a global treaty on climate change. UN negotiations on a framework convention begin.
1988	The IPCC is set up.
1979	The first WCC takes place.

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